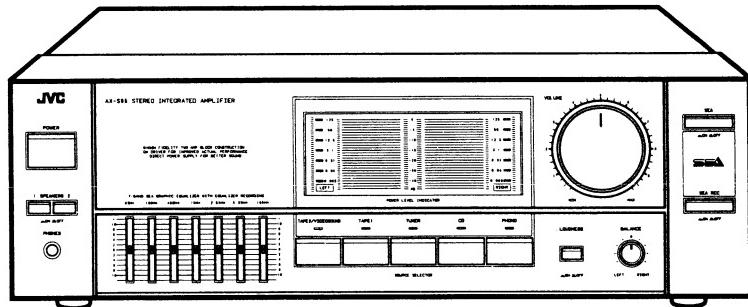


JVC

SERVICE MANUAL

STEREO INTEGRATED AMPLIFIER

AX-S95BK (For the U.S.A.)
MODEL No. AX-S95XBK (For Canada)



Note: The exteriors of AX-S95BK and AX-S95XBK are different in color. Everything else is identical.

Contents

	Page		Page
Safety Precautions.....	1-2	Internal Block Diagrams of ICs.....	1-14
Specifications.....	1-3	Connection Diagram	1-16
Instruction Book	1-4	Schematic Diagram	Insertion
Removal Procedures.....	1-11	Printed Circuit Board Ass'y	Insertion
Adjustment Procedures	1-12	Parts List.....	Separate Volume Insertion
Block Diagram	1-13		

-Safety Precautions

1. The design of this product contains special hardware and many circuits and components specially for safety purposes. For continued protection, no changes should be made to the original design unless authorized in writing by the manufacturer. Replacement parts must be identical to those used in the original circuits. Service should be performed by qualified personnel only.
2. Alterations of the design or circuitry of the product should not be made. Any design alterations of the product should not be made. Any design alterations or additions will void the manufacturer's warranty and will further relieve the manufacturer of responsibility for personal injury or property damage resulting therefrom.
3. Many electrical and mechanical parts in the product have special safety-related characteristics. These characteristics are often not evident from visual inspection nor can the protection afforded by them necessarily be obtained by using replacement components rated for higher voltage, wattage, etc. Replacement parts which have these special safety characteristics are identified in the Parts List of Service Manual. Electrical components having such features are identified by shading on the schematics and by (\triangle) on the Parts List in the Service Manual. The use of a substitute replacement which does not have the same safety characteristics as the recommended replacement part shown in the Parts List of Service Manual may create shock, fire, or other hazards.
4. The leads in the products are routed and dressed with ties, clamps, tubings, barriers and the like to be separated from live parts, high temperature parts, moving parts and/or sharp edges for the prevention of electric shock and fire hazard. When service is required, the original lead routing and dress should be observed, and it should be confirmed that they have been returned to normal, after re-assembling.
5. Leakage current check (Electrical shock hazard testing)

After re-assembling the product, always perform an isolation check on the exposed metal parts of the product (antenna terminals, knobs, metal cabinet, screw heads, headphone jack, control shafts, etc.) to be sure the product is safe to operate without danger of electrical shock.

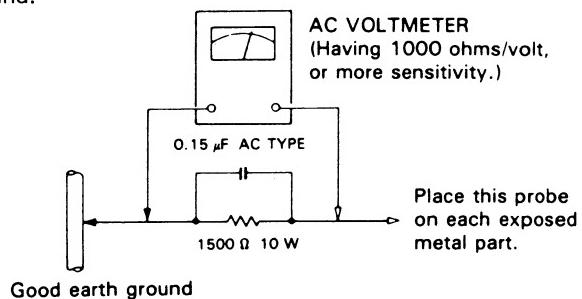
Do not use a line isolation transformer during this check.

- Plug the AC line cord directly into the AC outlet. Using a "Leakage Current Tester", measure the leakage current from each exposed metal part of the cabinet, particularly any exposed metal part having a return path to the chassis, to a known good earth ground. Any leakage current must not exceed 0.5 mA AC (r.m.s.).
- Alternate check method

Plug the AC line cord directly into the AC outlet. Use an AC voltmeter having 1,000 ohms per volt or more sensitivity in the following manner. Connect a $1,500 \Omega$ 10 W resistor paralleled by a $0.15 \mu\text{F}$ AC-type capacitor between an exposed metal part and a known good earth ground.

Measure the AC voltage across the resistor with the AC voltmeter.

Move the resistor connection to each exposed metal part, particularly any exposed metal part having a return path to the chassis, and measure the AC voltage across the resistor. Now, reverse the plug in the AC outlet and repeat each measurement. Any voltage measured must not exceed 0.75 V AC (r.m.s.). This corresponds to 0.5 mA AC (r.m.s.).



-Warning

1. This equipment has been designed and manufactured to meet international safety standards.
2. It is the legal responsibility of the repairer to ensure that these safety standards are maintained.
3. Repairs must be made in accordance with the relevant safety standards.
4. It is essential that safety critical components are replaced by approved parts.
5. If mains voltage selector is provided, check setting for local voltage.

Specifications

Output power	: 100 watts per channel, min. RMS, both channels driven into 8 ohms from 20 Hz to 20 kHz, with no more than 0.03% total harmonic distortion.
	100 watts per channel, min. RMS, both channels driven, into 8 ohms at 1 kHz with no more than 0.004% total harmonic distortion.
Total harmonic distortion	: 0.004% at 100 watts (1 kHz, 8 ohms)
Power band width	: 5 Hz — 80 kHz ('66 IHF 0.2%, 8 ohms, both channels driven)
Frequency response	: 5 Hz — 60 kHz, +0, -3 dB (8 ohms)
Input terminals	
Input sensitivity/ impedance (1 kHz)	
PHONO	: 2.5 mV/47 kohms
TUNER, CD,	: 200 mV/47 kohms
TAPE 1,	
TAPE 2/	
VIDEO SOUND	
Signal-to-noise ratio	
PHONO	: 75 dB ('66 IHF) 78 dB ('78 IHF, Rec Out)
TUNER, CD,	: 103 dB ('66 IHF)
TAPE 1,	: 77 dB ('78 IHF, Speaker Out)
TAPE 2/	
VIDEO SOUND	
S.E.A. graphic equalizer	
Center frequencies	: 63 Hz, 160 Hz, 400 Hz, 1 kHz, 2.5 kHz, 6.3 kHz, 16 kHz
Control range	: +10 dB±1 dB, -10 dB±1 dB
Loudness controls	: +5 dB (at 100 Hz)
(Volume control at -30 dB position)	: +4 dB (at 10 kHz)
PHONO RIAA deviation	: ±0.4 dB (20 Hz — 20 kHz)

GENERAL

Dimensions and weight :

Dimensions (cm)			Weight (kg/lbs)
Width	Height	Depth	
43.5 (17-3/16")	13.7 (5-7/16")	29.9 (11-13/16")	7.4/16.4

Design and specifications subject to change without notice.

POWER SPECIFICATIONS

Areas	Line Voltage & Frequency	Power Consumption
U.S.A.	AC 120 V ~, 60 Hz	365 watts
Canada		365 watts, 475 VA

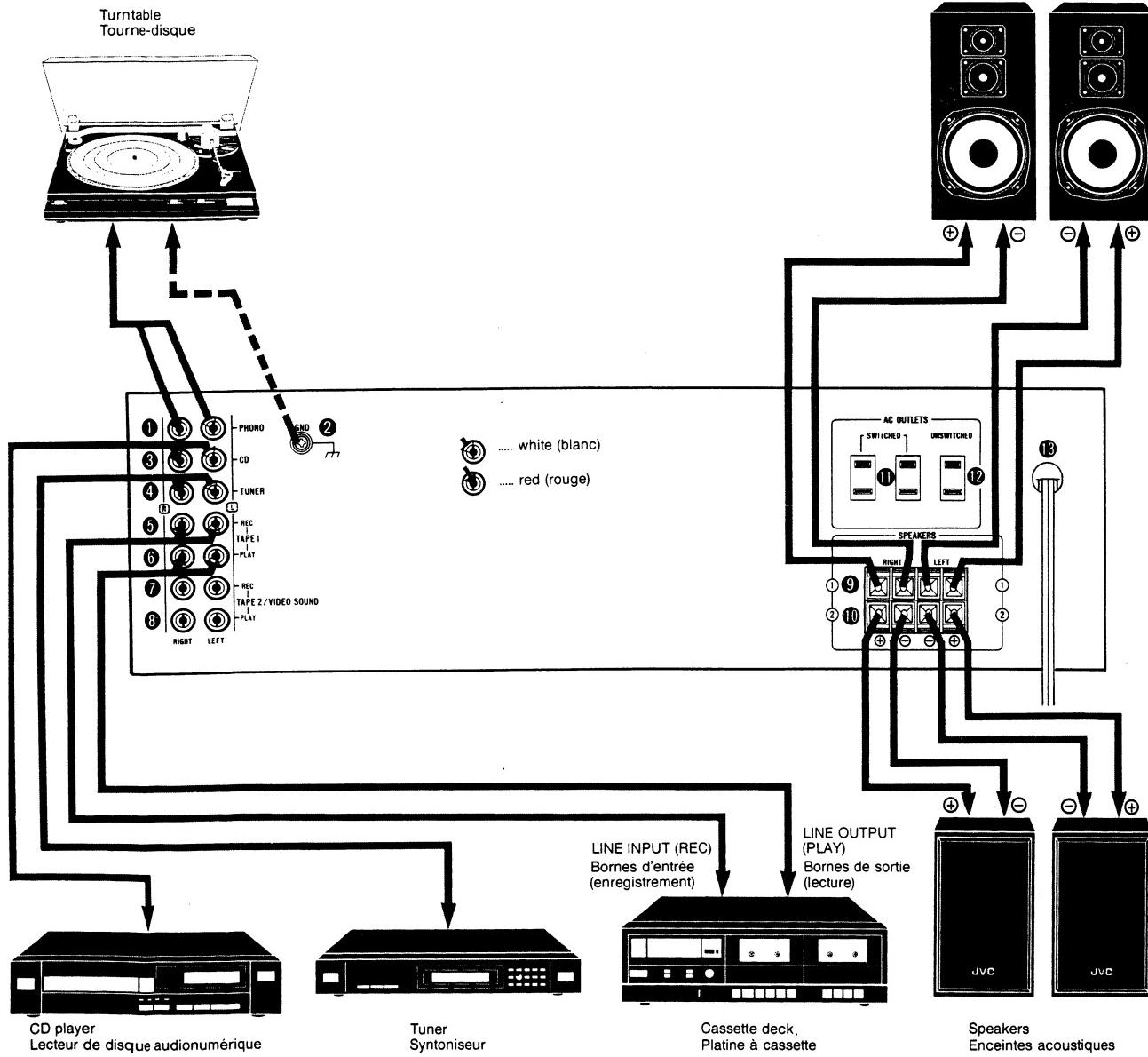
CONNECTION DIAGRAM DIAGRAMM DES RACCORDEMENTS

Note:

Do not connect the power plugs of component unless all the connection is completed.

Remarque:

Ne pas mettre le cordon d'alimentation dans la prise de courant avant que tous les raccordements ne soient terminés.



- ① PHONO terminals
- ② GND terminal
If your turntable has a ground lead, connect it to the GND terminal.
- ③ CD terminals
- ④ TUNER terminals
- ⑤ TAPE 1 REC terminals
- ⑥ TAPE 1 PLAY terminals
- ⑦ TAPE 2/VIDEO SOUND REC terminals
- ⑧ TAPE 2/VIDEO SOUND PLAY terminals
- ⑨ SPEAKERS 1 terminals
- ⑩ SPEAKERS 2 terminals
- ⑪ SWITCHED AC OUTLETS
- ⑫ UNSWITCHED AC OUTLET
- ⑬ Power cord

Notes:

1. When connecting components, make the correct left and right channel connections. Reversed channels may degrade the stereo effect.
2. Connect speakers with correct polarity: (+) to (+) and (-) to (-). Reversed polarity will degrade the stereo effect.
3. Connect plugs or wires firmly. Poor contact may result in hum.
4. Use speakers with the correct impedance. The correct impedance is indicated on the rear panel of the AX-S95BK/XBK.
5. The SWITCHED AC outlets are switched off when the front panel power switch is switched off. Do not connect the power plugs of components which have a total power consumption exceeding the value indicated on the rear panel.
6. The UNSWITCHED AC outlet is not switched off when the front panel power switch is switched off. Do not connect the power plugs of components which have a total power consumption exceeding the value indicated on the rear panel.

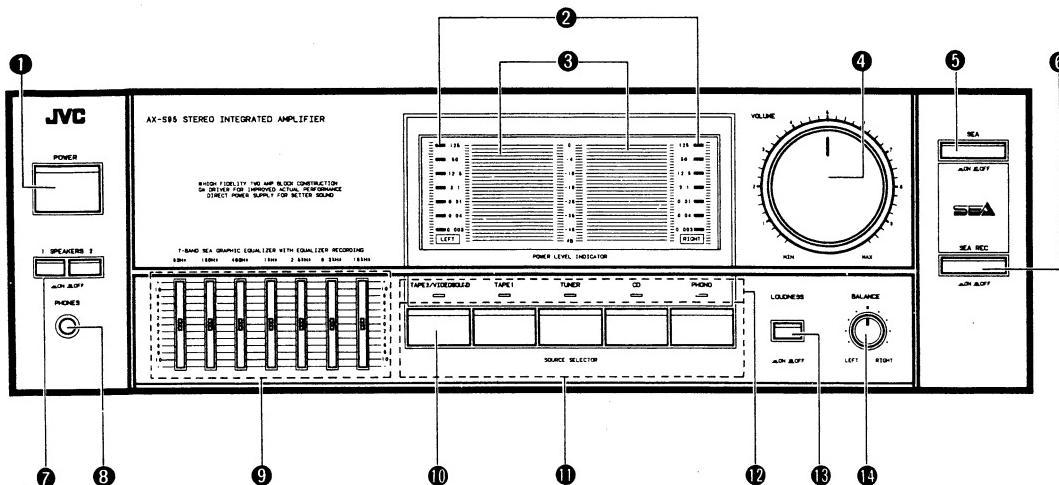
- ① Bornes de platine tourne-disque (PHONO)
- ② Borne de mise à la terre (GND)
Si votre platine tourne-disque a un câble de mise à la terre, le raccorder à cette borne.
- ③ Bornes de lecteur de disque audionumérique (CD)
- ④ Bornes TUNER
- ⑤ Bornes d'enregistrement de bande 1 (TAPE 1 REC)
- ⑥ Bornes de lecture de bande 1 (TAPE 1 PLAY)
- ⑦ Bornes d'enregistrement de bande 2/son de video (TAPE 2/VIDEO SOUND REC)
- ⑧ Bornes de lecture de bande 2/son de video (TAPE 2/VIDEO SOUND PLAY)
- ⑨ Bornes de haut-parleurs 1 (SPEAKERS 1)
- ⑩ Bornes de haut-parleurs 2 (SPEAKERS 2)
- ⑪ Prises CA commutées (SWITCHED AC OUTLETS)
- ⑫ Prise CA non commutée (UNSWITCHED AC OUTLET)
- ⑬ Cordon d'alimentation

Remarques:

1. Lors du raccordement des appareils, effectuer correctement les connexions des canaux de gauche et de droite. Des canaux inversés provoqueront une dégradation de l'effet stéréo.
2. Raccorder les haut-parleurs avec une polarité correcte: (+) sur (+) et (-) sur (-). Une polarité inversée risque de dégrader l'effet stéréo.
3. Raccorder fermement les prises et fils. Un mauvais contact risque de provoquer des bourdonnements.
4. Utiliser des haut-parleurs avec une impédance correcte. La bonne impédance est indiquée sur le panneau arrière du AX-S95BK/XBK.
5. Les prises SWITCHED AC sont mises hors circuit quand l'interrupteur d'alimentation du panneau frontal est mis sur la position d'arrêt. Ne pas brancher les fiches d'alimentation d'appareils qui ont une consommation électrique totale supérieure à la valeur indiquée sur le panneau arrière.
6. La prise UNSWITCHED AC n'est pas mise hors circuit quand l'interrupteur d'alimentation du panneau frontal est mis sur la position d'arrêt. Ne pas brancher les fiches d'alimentation d'appareils qui ont une consommation, électrique totale supérieure à la valeur indiquée sur le panneau arrière.

FRONT PANEL

PANNEAU AVANT



① POWER

Press this button to turn the power on. To turn the power off, press it again.

Notes:

- When power is not supplied to this amplifier for 2—3 days, the source select button pressed before the power was switched off may be lost when the power is switched on again. If this happens, set the buttons, etc. again.
- An electronic source selector is used in this unit. When the POWER button is first switched on, two or more sources or no source may be selected. Make sure to input the source select data by pressing one of the source selectors.
- If the POWER button is pressed repeatedly to switch on and off too quickly, the same phenomenon as the above may occur.

② POWER LEVEL INDICATOR

This indicator lights according to the output.

③ Power indicator

When the power button is pressed the indicator will light.

④ VOLUME

Controls the volume of the speakers and headphones.

⑤ SEA (ON — /OFF ■)

Press this button to listen to the S.E.A.-compensated sound.

⑥ SEA REC (ON — /OFF ■)

Press this button to record S.E.A.-compensated signals.

Note:

- S.E.A. recording is possible when TAPE 1 terminal is used and not possible when TAPE 2/VIDEO SOUND terminals are used.

⑦ SPEAKERS

SPEAKERS 1

Press to switch the speakers connected to the SPEAKERS 1 terminals on or off.

SPEAKERS 2

Press to switch the speakers connected to the SPEAKERS 2 terminals on or off.

① Interrupteur d'alimentation (POWER)

Appuyer pour mettre l'alimentation. Pour couper l'alimentation, appuyer une nouvelle fois.

Remarques:

- Quand l'alimentation n'est pas fournie pendant 2 à 3 jours, le sélecteur de source enfoncé avant que l'alimentation n'ait été coupée risquent d'être perdu quand l'alimentation est à nouveau fournie. Dans ce cas, régler à nouveau les touches, etc.
- Un sélecteur de source électrique est utilisé dans cet appareil. Quand l'interrupteur POWER est mis en marche, deux sources, plus de deux ou aucune source risquent d'être sélectionnées. S'assurer de bien mettre en entrée les données de sélection de source en enfonceant l'un des sélecteurs de source.
- Si l'interrupteur POWER est enfoncé plusieurs fois de suite pour fournir et couper l'alimentation trop rapidement, le même phénomène que ci-dessus se produira.

② Indicateur de niveau d'alimentation (POWER LEVEL INDICATOR)

Cet indicateur s'allume suivant le débit.

③ Indicateur d'alimentation (Power indicator)

Lorsque l'interrupteur POWER est enfoncée, l'indicateur sera allumé.

④ Commande de volume (VOLUME)

Pour contrôler le volume des haut-parleurs et du casque d'écoute.

⑤ SEA (ON — /OFF ■)

Presser cette touche pour écouter un son compensé S.E.A.

⑥ SEA REC (ON — /OFF ■)

Presser cette touche pour enregistrer des signaux compensés S.E.A.

Remarque:

- L'enregistrement S.E.A. est possible lorsque la borne TAPE TAPE 1 est utilisée et n'est pas possible lorsque les bornes TAPE 2/VIDEO SOUND sont utilisées.

⑦ Haut-parleurs (SPEAKERS)

SPEAKERS 1

Presser pour commuter les haut-parleurs raccordés aux bornes SPEAKERS 1 en et hors circuit.

SPEAKERS 2

Presser pour commuter les haut-parleurs raccordés aux bornes SPEAKERS 2 en et hors circuit.

Note:

- When speakers are connected to only one system of the SPEAKERS terminals, press only the SPEAKERS button of the system connected; if both buttons are pressed, sound will not be heard from either speaker system. When two pairs of speakers are connected and either or both SPEAKERS buttons is/are pressed, sound will be heard from either or both speaker system(s).

⑩ PHONES (Headphone Jack)

Plug stereo headphones into this jack for private listening and recording monitoring. If you want to listen to sound from the headphones only, press the SPEAKERS buttons to OFF.

⑪ S.E.A. controls

The built-in graphic equalizer divides the audio spectrum from 63 Hz to 16 kHz into 7 frequency bands having their center frequencies at intervals of 4/3 octave starting from 1 kHz in both directions.

When the knob is set to '0' (center position), frequency response is flat. The response can be varied by ± 10 dB by raising or lowering the knob.

63 Hz: Raise to emphasize the very low bass response of organs, drums, and contrabass. It produces stable and solid sound by raising the knob and eliminates the unclear sound response of low frequencies by lowering the knob.

160 Hz: Raise the knob to obtain a more expanded low sound. Lower the knob to eliminate unclear sound caused by large spaces in listening rooms.

400 Hz: This frequency range is the base on which music is constructed. Raise this knob to put a punch to your music.

1 kHz: Most effective in emphasizing or de-emphasizing the human voice. Raise the knob to cause the vocalist to be brought to the foreground, or lower it to recede into the background.

2.5 kHz: This frequency stimulates the human ear. If the music sounds hard or metallic, lower this knob.

6.3 kHz: Boost to add clarity to winds and strings. Moving this control varies the tonal expression, influencing the subtleties of the music.

16 kHz: Boosting this frequency range properly adds to the delicacy of highs, with cymbals and triangles resounding in a more ear-pleasing manner, and provides a feeling of extension.

⑫ MONITOR

TAPE 2/VIDEO SOUND: Press to listen to a cassette deck or a video unit connected to the TAPE 2/VIDEO SOUND terminals. Press again this button will release this function so that the source selected by another source select button may be heard.

⑬ SOURCE SELECTOR

TAPE 1: Press to listen to a cassette deck connected to TAPE 1 terminals.

TUNER: Press this button to listen to a radio broadcast.

CD: Press this button to listen to a compact disc player connected to the CD terminals.

PHONO: Press to listen to a turntable connected to the PHONO terminals.

Remarque:

- Quand les haut-parleurs ne sont raccordés qu'à une paire de bornes SPEAKERS, n'enfoncer que la touche du système raccordé; si les deux commutateurs sont enfoncés, le son ne sera audible d'aucun système. Quand les deux paires sont raccordées et que l'une des touches SPEAKERS ou les deux sont enfoncées, le son sera audible soit d'un système de haut-parleurs, soit des deux.

⑭ Prise de casque d'écoute (PHONES)

Y brancher un casque d'écoute stéréo pour l'écoute en privé et le contrôle de l'enregistrement. Si vous voulez écouter le son provenant du casque uniquement, presser les touches SPEAKERS sur OFF.

⑮ Commandes S.E.A.

L'égaliseur graphique incorporé divise le spectre audio de 63 Hz à 16 kHz en 7 gammes de fréquences ayant des fréquences centrales à des intervalles de 4/3 octave, à partir de 1 kHz dans les deux directions.

Quand la commande est placée sur '0' (position centrale), la réponse est plane. La réponse peut être modifiée de ± 10 dB, en élevant ou abaissant cette commande.

63 Hz: L'élever pour augmenter les très basses réponses d'orgues, de tambours et de contrebasses. Quand cette commande est élevée, un son stable et profond est produit et les réponses sonores des basses fréquences qui ne sont pas claires sont éliminées lorsqu'elle est abaissée.

160 Hz: Elever cette commande pour obtenir un son bas plus élargi. L'abaisser pour éliminer les sons peu clairs dus à de larges espaces dans les salles d'écoute.

400 Hz: Cette gamme de fréquences est celle sur laquelle la musique est élaborée. Elever cette commande pour donner du punch à votre musique.

1 kHz: La plus efficace pour augmenter ou diminuer la voix humaine. Elever cette commande pour que la voix du soliste soit placée au premier plan et l'abaisser pour la retrancher à l'arrière plan.

2.5 kHz: Cette fréquence stimule l'oreille humaine. Si la musique semble dure ou métallique, abaisser cette commande.

6.3 kHz: L'augmenter pour ajouter de la clarté aux instruments à vent ou à cordes. Le fait de déplacer cette commande diversifie l'expression de la tonalité, et influence les subtilités de la musique.

16 kHz: Augmenter correctement cette gamme de fréquences ajoute de la délicatesse aux hautes et les cymbales ou triangles résonnent d'une manière plus agréable, donnant une impression d'extension.

⑯ MONITOR

TAPE 2/VIDEO SOUND: Appuyer pour écouter une platine à cassette ou un magnétoscope raccordé aux bornes TAPE 2/VIDEO SOUND. Une autre pression sur cette touche libérera cette fonction pour que la source sélectionnée par une autre touche de sélection de source puisse être entendue.

⑰ Sélecteur de source

TAPE 1: Appuyer pour écouter une platine à cassette raccordée aux bornes TAPE 1.

TUNER: Appuyer sur cette touche pour écouter une émission.

CD: Appuyer sur cette touche pour écouter le lecteur de disque audionumérique raccordé aux bornes CD.

PHONO: Appuyer pour écouter un tourne-disque raccordé aux bornes PHONO.

② Source indicator

The indicator corresponding to the monitor and source select button pressed lights.

③ LOUDNESS (ON / OFF)

Press this button to compensate for the ear's lower sensitivity at low listening levels.

④ BALANCE

Use to adjust the balance between the left and right speakers. Normally set this control to the center click position.

⑫ Indicateurs de source (Source indicator)

L'indicateur correspondant au moniteur et sélecteur de source enfoncé s'allume.

⑬ Contour (LOUDNESS) (ON / OFF)

Presser cette touche pour compenser la plus basse sensibilité de l'oreille à de bas niveaux d'écoute.

⑭ Commande de balance (BALANCE)

L'utiliser pour équilibrer les haut-parleurs de gauche et de droite.

La placer normalement sur la position centrale à déclic.

OPERATION

Before use

Connect each component correctly, then plug the power cord to an AC wall outlet.

Basic operation

1. Press the POWER button to on.
2. Select the speaker system with the SPEAKERS buttons.
3. Proceed through the steps described below according to your purpose.
4. Adjust the volume and balance you require.
5. Use the SEA buttons to obtain the tone you wish to hear.

Listening to broadcasts

1. Press the TUNER button so that the TUNER indicator lights.
2. Operate the tuner as described in its operation manual.

Listening to records

1. Press the PHONO button so that the PHONO indicator lights.
2. Operate the turntable as described in its operation manual.

Notes:

- Use a turntable with an MM cartridge.
- If your turntable has a separate ground lead, connect it to the GND terminals.

Listening to CD

1. Press the CD button so that the CD indicator lights.
2. Operate the CD player as described in its operation manual.

Listening to tapes

1. Press the TAPE 1 button so that the TAPE 1 indicator lights.
2. Operate the cassette deck for playback as described in its operation manual.

Listening to TAPE 2/VIDEO SOUND

1. Press the TAPE 2/VIDEO SOUND button so that the TAPE 2/VIDEO SOUND indicator lights.
2. Operate the cassette deck or the video unit as described in its operation manual.

Recording tapes

— Recording from records —

1. Press the PHONO button so that the PHONO indicator lights.
2. Operate the turntable.
3. Operate the cassette deck for recording.

FONCTIONNEMENT

Avant de faire fonctionner l'appareil

Raccorder correctement chaque appareil et brancher le cordon d'alimentation sur une prise CA murale.

Fonctionnement de base

1. Presser la touche POWER sur la position de marche.
2. Sélectionner les haut-parleurs avec les touches SPEAKERS.
3. Effectuer les étapes décrites ci-dessous selon le besoin.
4. Régler le volume et la balance comme requis.
5. Utiliser les touches SEA pour obtenir la tonalité que vous voulez.

Ecoute d'émissions

1. Presser la touche TUNER de manière à ce que l'indicateur TUNER s'allume.
2. Faire fonctionner le syntoniseur comme indiqué dans son manuel d'instructions.

Ecoute de disques

1. Presser la touche PHONO de manière à ce que l'indicateur PHONO s'allume.
2. Faire fonctionner la platine tourne-disque comme indiqué dans son manuel d'instructions.

Remarques:

- Utiliser une platine tourne-disque avec une cellule MM.
- Si votre platine tourne-disque possède un câble de mise à la terre séparée, le raccorder à la borne GND.

Ecoute de disques audionumériques

1. Presser la touche CD de manière à ce que l'indicateur CD s'allume.
2. Faire fonctionner le lecteur de disques audionumériques comme indiqué dans son manuel d'instructions.

Ecoute de bandes

1. Presser la touche TAPE 1 de manière à ce que l'indicateur TAPE 1 s'allume.
2. Faire fonctionner la platine à cassette ou le magnétoscope pour la lecture comme décrit dans son manuel d'instructions.

Ecoute de bande 2/son de vidéo (TAPE 2/VIDEO SOUND)

1. Presser la touche TAPE 2/VIDEO SOUND de manière à ce que l'indicateur TAPE 2/VIDEO SOUND s'allume.
2. Faire fonctionner l'appareil vidéo comme décrit dans son manuel d'instructions.

Enregistrement de bandes

— Enregistrement à partir de disques —

1. Presser la touche PHONO de manière à ce que l'indicateur PHONO s'allume.
2. Faire fonctionner la platine tourne-disque.
3. Faire fonctionner la platine à cassette pour l'enregistrement.

Note:

- The sound you hear from the speakers or headphones is the source sound (record playback sound in this case), not the recording on the tape.

— Recording from other sources (CD, TUNER) —

Press the button corresponding to the source to be recorded. All other operations are identical to those when recording from records.

*For S.E.A. recording using the SEA REC button, refer to page 9.

Dubbing tape

To dub tapes, connect two cassette decks. One for playback and the other for recording. You can dub from the cassette deck (connected to the TAPE 2/VIDEO SOUND terminals) onto the cassette deck (connected to the TAPE 1 REC terminals) and vice versa.

— Dubbing from Tape 1 to Tape 2 —

1. Activate the TAPE 1 button and the TAPE 1 indicator lights.
2. Operate the cassette deck (connected to the TAPE 1 PLAY terminals) for playback.
3. Operate the cassette deck (connected to the TAPE 2/VIDEO SOUND terminals) for recording.

— Dubbing from Tape 2 to Tape 1 —

1. Activate the TAPE 2/VIDEO SOUND button and the TAPE 2/VIDEO SOUND indicator lights.
2. Operate the cassette deck (connected to the TAPE 2/VIDEO SOUND terminals) for playback.
3. Operate the cassette deck (connected to the TAPE 1 REC terminals) for recording.

Notes:

- When dubbing from the cassette deck (connected to TAPE 2/VIDEO SOUND terminals) onto the other cassette deck, select the button other than "TAPE 1".
- While playing back a cassette on the cassette deck (connected to TAPE 2/VIDEO SOUND terminals), you can not record other source sounds onto the component (connected to TAPE 1 REC terminals).
- When recording or dubbing tapes, the source sound will be heard from the speakers or headphones. Not the sound being recorded on the tape.
- The S.E.A. recording is not applicable to the cassette deck (connected to the TAPE 2/VIDEO SOUND terminals).

Using stereo headphones

Stereo headphones can be plugged into the front panel jack. The signal from this jack is independent of the speakers.

1. Plug stereo headphones into this jack for private listening and recording monitoring. If you want to listen to sound from the headphones alone, press the SPEAKERS buttons to OFF (■).
2. To listen through headphones while listening to the speakers, press the appropriate SPEAKERS buttons to ON (□).

Note:

- Pull out the headphone plug when not in use.

Remarque:

- Le son que vous entendez des haut-parleurs ou du casque d'écoute est le son de la source (son de lecture du disque dans ce cas) et non l'enregistrement sur la bande.

— Enregistrement à partir d'une autre source (CD, TUNER) —

Presser la touche correspondant à la source à enregistrer. Tous les autres fonctionnements sont identiques à ceux de l'enregistrement à partir de disques.

*Pour l'enregistrement S.E.A. en utilisant la touche SEA REC, se référer à la page 9.

Copie de bandes

Connecter deux platines à cassette. Une pour la lecture et l'autre pour l'enregistrement, pour copier des bandes. Vous pouvez faire la copie de la platine à cassette (connectée aux bornes pour la platine à cassette TAPE 2/VIDEO SOUND) vers la platine à cassette (connectée aux bornes de sortie pour enregistrement sur la platine à cassette 1 TAPE 1 REC) et vice versa.

— Copie de la platine à cassette 1 vers la platine à cassette 2 —

1. Enclencher la touche TAPE 1, l'indicateur TAPE 1 s'allume.
2. Faire fonctionner la platine à cassette (connectée aux bornes de lecture pour la platine à cassette 1 TAPE 1 PLAY) dans le mode de lecture.
3. Faire fonctionner la platine à cassette (connectée aux bornes pour la platine à cassette 2 TAPE 2/VIDEO SOUND) dans le mode d'enregistrement.

— Copie de la platine à cassette 2 vers la platine à cassette 1 —

1. Enclencher la touche TAPE 2/VIDEO SOUND, l'indicateur TAPE 2/VIDEO SOUND s'allume.
2. Faire fonctionner la platine à cassette (connectée aux bornes TAPE 2/VIDEO SOUND) dans le mode de lecture.
3. Faire fonctionner la platine à cassette (connectée aux bornes TAPE 1 REC) dans le mode d'enregistrement.

Remarques:

- Lors de la copie de bandes à partir de la platine à cassette (connectée aux bornes TAPE 2/VIDEO SOUND) vers une autre platine, utiliser une touche autre que "TAPE 1".
- Lors de la lecture de la cassette de la platine à cassette (connectée aux bornes TAPE 2/VIDEO SOUND), vous ne pouvez pas enregistrer une autre source d'entrée sur l'appareil (connectée aux bornes TAPE 1 REC).
- Lors de l'enregistrement ou de la copie de bandes, le son délivré par les enceintes ou le casque est celui de la source d'entrée. Non pas le son enregistré sur la bande.
- L'enregistrement S.E.A. ne s'applique pas à la platine à cassette (connectée aux bornes TAPE 2/VIDEO SOUND).

Utilisation d'un casque d'écoute stéréo

Un casque d'écoute stéréo peut être branché sur la prise du panneau avant. Le signal provenant de cette prise est indépendant des haut-parleurs.

1. Brancher le casque d'écoute stéréo à cette prise pour une écoute privée ou le contrôle d'enregistrement. Si vous voulez seulement écouter les son du casque d'écoute, presser les touches SPEAKERS sur OFF (■).
2. Pour écouter avec le casque d'écoute tout en écoutant les haut-parleurs, presser les touches SPEAKERS appropriées sur ON (□).

Remarque:

- Débrancher la fiche du casque d'écoute quand vous ne l'utilisez pas.

OPERATION OF THE S.E.A. GRAPHIC EQUALIZER

Compensation for room acoustics

The frequency response of the listening area varies depending on the room's shape or furnishings, and the position of the listener in the room. Each listening position in the room provides the listener with a different set of frequency responses, as a result of different degrees of reverberation, reflection, echo, and absorption affecting each frequency.

The S.E.A. system can function to make the sound response of a room flat by emphasizing those frequencies having a high degree of absorption and de-emphasizing those frequencies having a high degree of reflection.

The frequency ranges affected by "absorption" and "reflection" are narrow; therefore, it is only necessary to compensate the corresponding frequency band.

Since conventional tone control systems simply adjust the highs and lows centered around the frequency of 1 kHz, they are both imprecise and incomplete.

This unit monitors and equalizes seven separate audio frequency bands, thus allowing you to make the necessary adjustments in the precisely appropriate frequency bands in order to compensate for the acoustic response of a room and any listening position in it.

Custom sound processing

When a studio recording is made, the sound signals are processed to produce sound that is unique to a particular group or orchestra. With this unit you can do this at home — producing sound tailored exactly to your taste by emphasizing or de-emphasizing various parts of the music.

S.E.A. recording

The S.E.A. graphic equalizer tailors the sound to your own particular taste and compensates for room acoustics or system characteristics, as described above. This unit is equipped with an SEA REC button which makes it possible to record with the added effect of the S.E.A.

Operation

1. Set the S.E.A. pattern as required.
2. Press the SEA REC button.
3. Proceed in the same way as in normal recording.

Notes:

- When if you turn the VOLUME control the amplifier during S.E.A. recording, the recording level will not be affected.
- S.E.A. recording is possible when using the TAPE 1 terminals, but not when using the TAPE 2/VIDEO SOUND terminals.

FONCTIONNEMENT DE L'EGALISEUR GRAPHIQUE S.E.A.

Compensation de l'acoustique d'une pièce

La réponse en fréquence d'une salle d'écoute varie selon sa forme ou son ameublement et la position de l'auditeur dans la pièce. Chaque position d'écoute dans la pièce donne à l'auditeur un ensemble différent de réponses en fréquence comme résultat de différents degrés de réverberation, réflexion, écho et absorption affectant chaque fréquence.

Le système S.E.A. peut fonctionner pour rendre uniforme la réponse sonore d'une pièce en augmentant les fréquences ayant un haut degré d'absorption et en diminuant celles qui ont un haut degré de réflexion.

Les gammes de fréquences affectées par "l'absorption" et "la réflexion" sont étroites; par conséquent, il suffit de compenser la gamme de fréquences correspondante.

Du fait qu'un système de contrôle de la tonalité conventionnel n'ajuste que les hautes et basses centrées aux alentours de la fréquence 1 kHz, elles sont toutes deux imprécises et incomplètes. Cet appareil contrôle et égalise sept gammes de fréquences audio séparées, ce qui vous permet d'effectuer les réglages nécessaires dans les gammes de fréquences appropriées, et ce avec précision, de manière à compenser la réponse acoustique d'une pièce et de toute position d'écoute dans celle-ci.

Traitemennt du son sur mesure

Quand un enregistrement en studio est effectué, les signaux sonores sont traités pour produire un son qui est unique à un groupe ou orchestre particulier. Avec cet appareil, ceci est possible chez vous — une production du son exactement à votre goût en augmentant ou diminuant diverses parties de la musique.

Enregistrement S.E.A.

L'égaliseur graphique S.E.A. taille le son selon votre goût et compense l'acoustique d'une pièce ou les caractéristiques de chaînes, comme décrit ci-dessus. Cet appareil est muni d'une touche SEA REC qui rend possible l'enregistrement avec l'effet ajouté du S.E.A.

Fonctionnement

1. Régler la forme S.E.A. comme voulu.
2. Presser la touche SEA REC.
3. Procéder de la même manière que pour un enregistrement ordinaire.

Remarques:

- Si vous tournez la commande VOLUME sur l'amplificateur pendant l'enregistrement S.E.A., ceci n'affectera pas le niveau d'enregistrement.
- L'enregistrement S.E.A. est possible en utilisant les bornes TAPE 1, mais, n'est pas possible en utilisant les bornes TAPE 2/VIDEO SOUND.

Removal Procedures

■ Removing the Top Cover

1. Remove six screws.
2. Remove the top cover by lifting up its rear section and pulling it backward while holding it on incline.

■ Removing the Front Panel

1. Remove the top cover.
2. Remove three tapping screws on the upper part of the front panel and three tapping from the lower part.
3. Pull out the volume knob and remove the front panel.

■ Removing the Power Transistors

1. Remove the top cover.
2. Remove the seventeen tapping screws fixing the bottom cover, then take out the bottom cover.
3. Unsolder the power transistors.
4. Remove the nuts fixing the power transistors by a spanner, etc.

■ Removing the SEA PC Board (ENE-052-3)

1. Remove the front panel.
2. Remove three tapping screws Ⓐ – ⓒ retaining the SEA PC Board.

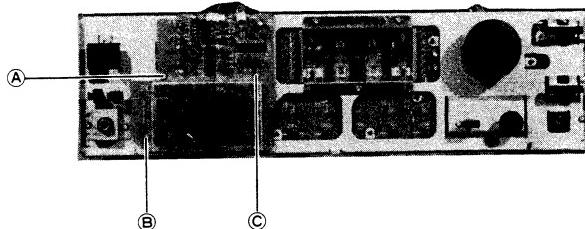
■ Removing the SEA, LOUDNESS and POWER Knobs.

1. Set their respective associated switches to OFF.
2. Draw out each of these knobs towards you.

Note: Unless a knob is drawn out after the OFF setting, its associated switch will be broken during work.

■ Removing the Front PC board (ENE-052-2)

1. Remove the top cover.
2. Take out the VOLUME knob.
3. Take out the front panel.
4. With the SEA and LOUDNESS switches set to OFF, take out each of the SEA and LOUDNESS knobs. Then, take out the BALANCE knob.
5. Remove the hexagonal nuts fixing the VR shafts and also the BALANCE VR shaft.
6. Remove the four screws fixing the SEA and LOUDNESS switches to the front chassis by two screws each.
7. Remove the seven plastic rivets fixing the front PC board.
8. With the POWER switch set to OFF, take out its accompanying knob.
9. Remove the three tapping screws fixing the front chassis.



Adjustment Procedures

I Power Amplifier Idling Current Adjustment

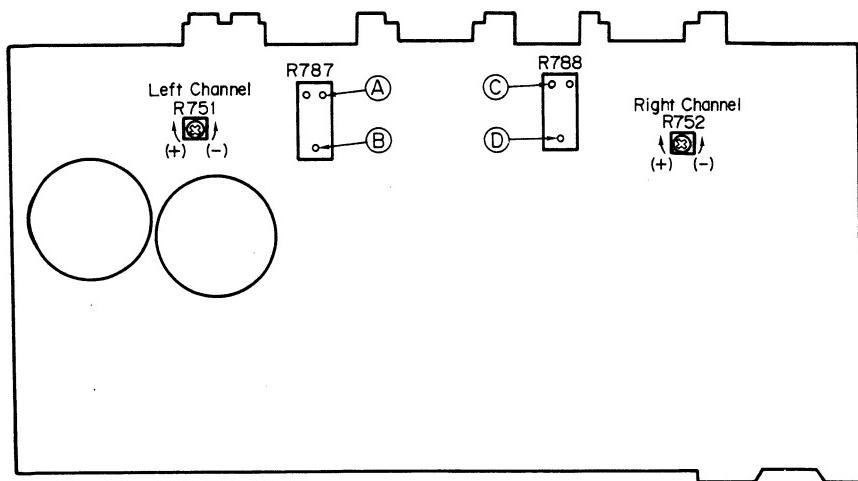
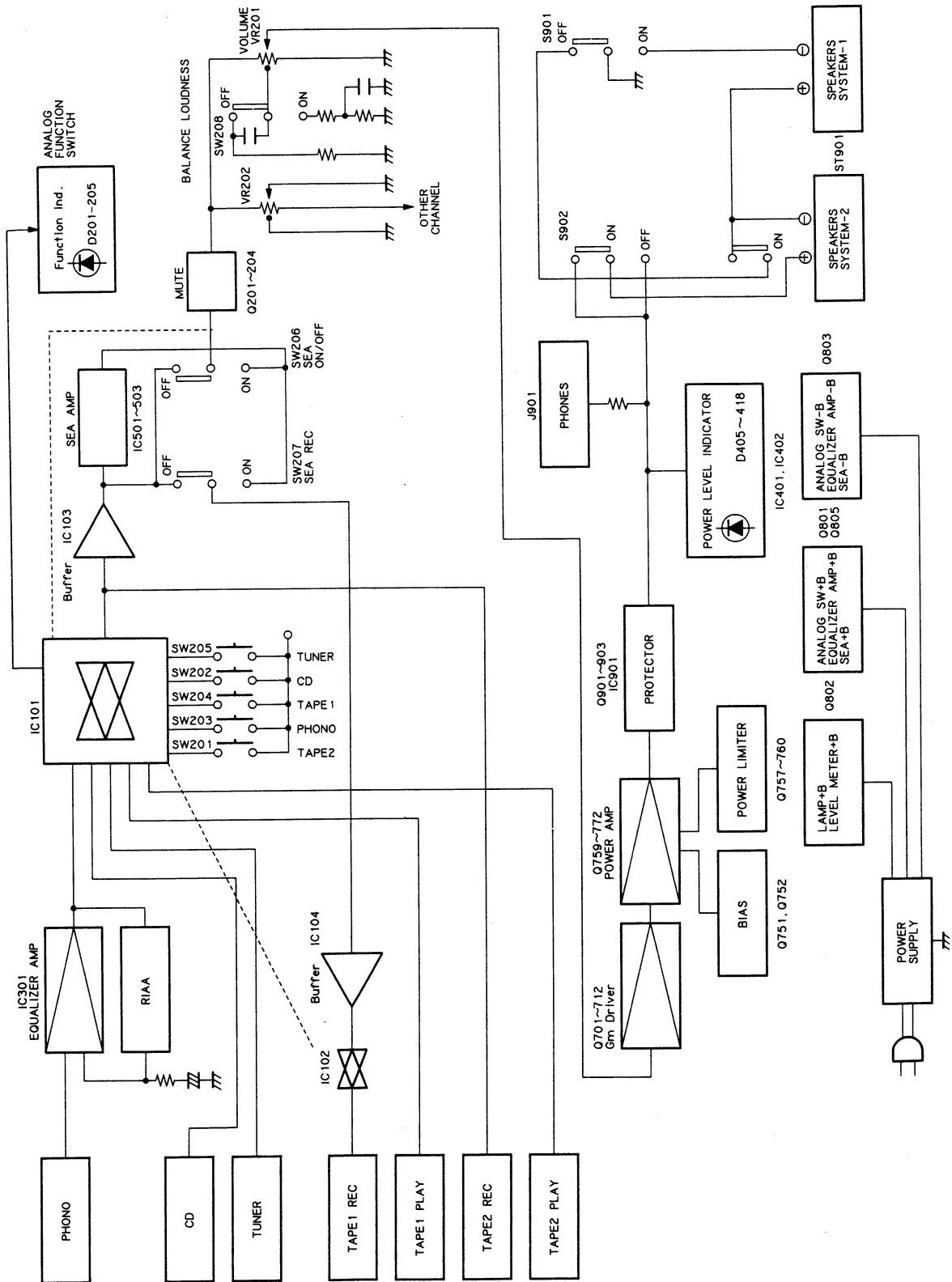


Fig. 3

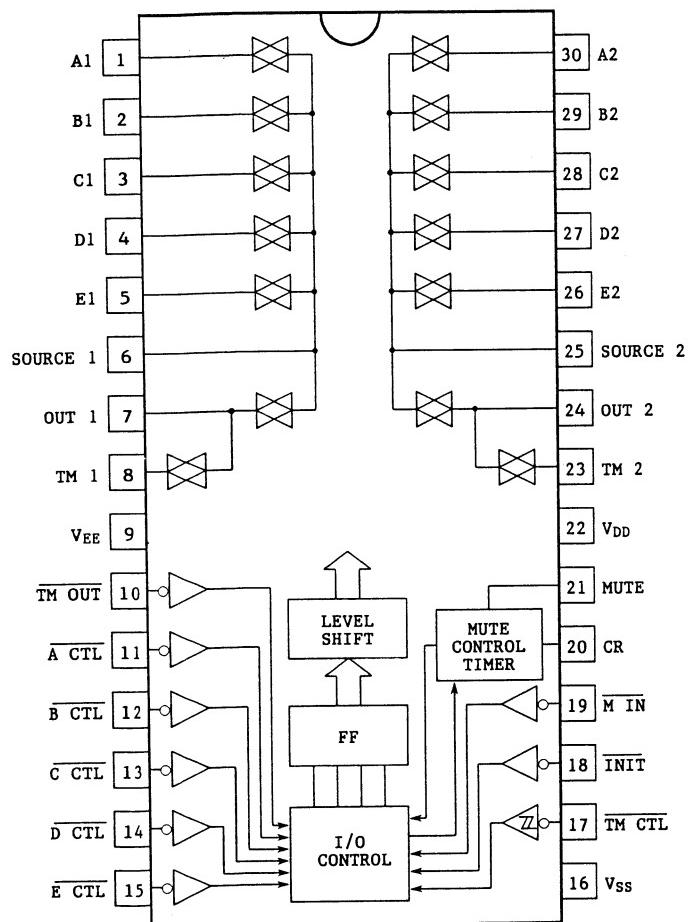
1. Before tuning on the power, turn the semi-fixed resistors (R751 for L channel and R752 for R channel) of the power amplifier circuit board fully counterclockwise.
 2. Adjust the semi-fixed resistor (R751 and R752) so that the voltage at the following test points of the power amplifier circuit board is within a range of 0.1 mV ~ 0.2 mV after the power is turned on.
L channel: Measure the voltage between test point **A** (emitter of Q769) and output at the test point **B**.
R channel: Measure the voltage between test point **C** (emitter of Q770) and output at the test point **D**.
 3. Readjust resistors R751 and R752 about 5 minutes after the power is turned on (the heatsink temperature must be sufficiently high) so that the voltage at the test points becomes 2 mV. Confirm that the voltage does not vary when the heatsink temperature increases further.
- Note:** Be sure to perform the measurement with the probes and cabinet of the measuring equipment separated from the grounding terminals of AX-S95BK/AX-S95XBK or other measuring equipment.

Block Diagram

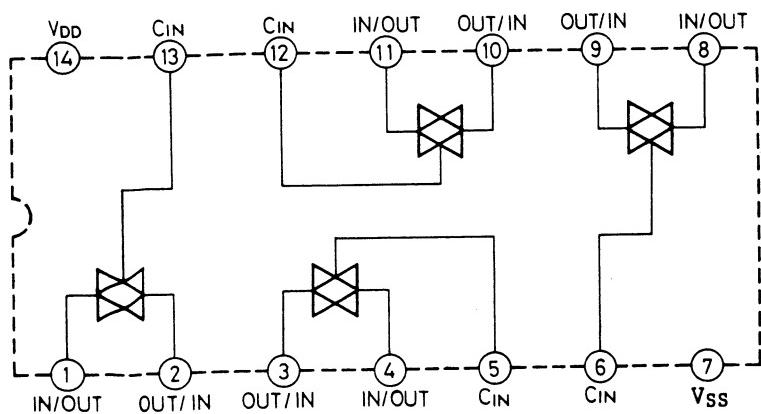


Internal Block Diagrams of ICs

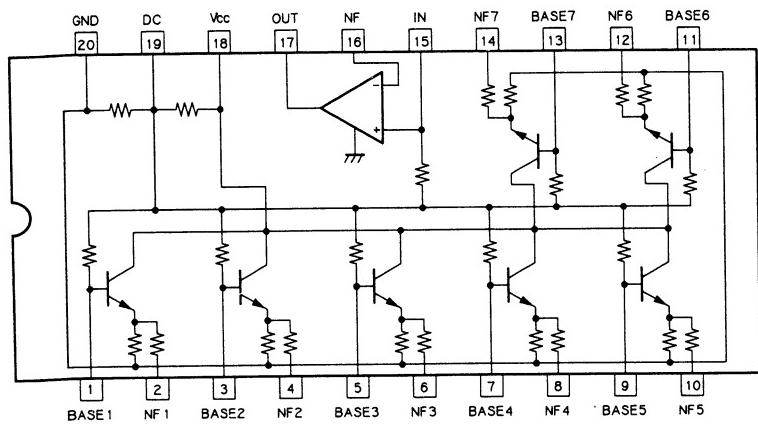
■ LC7818 (IC101)



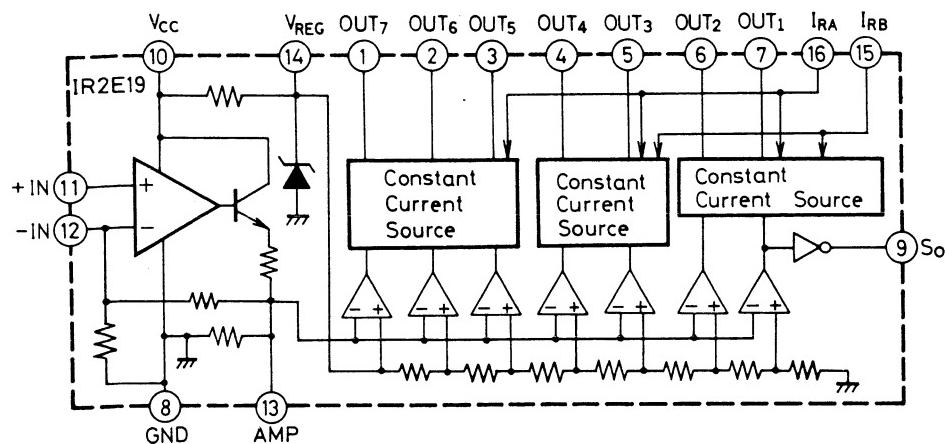
■ TC4066BP (IC102)



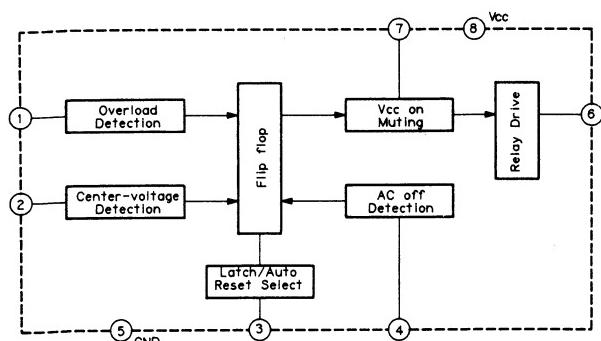
■ LA3607S (IC501, IC502)



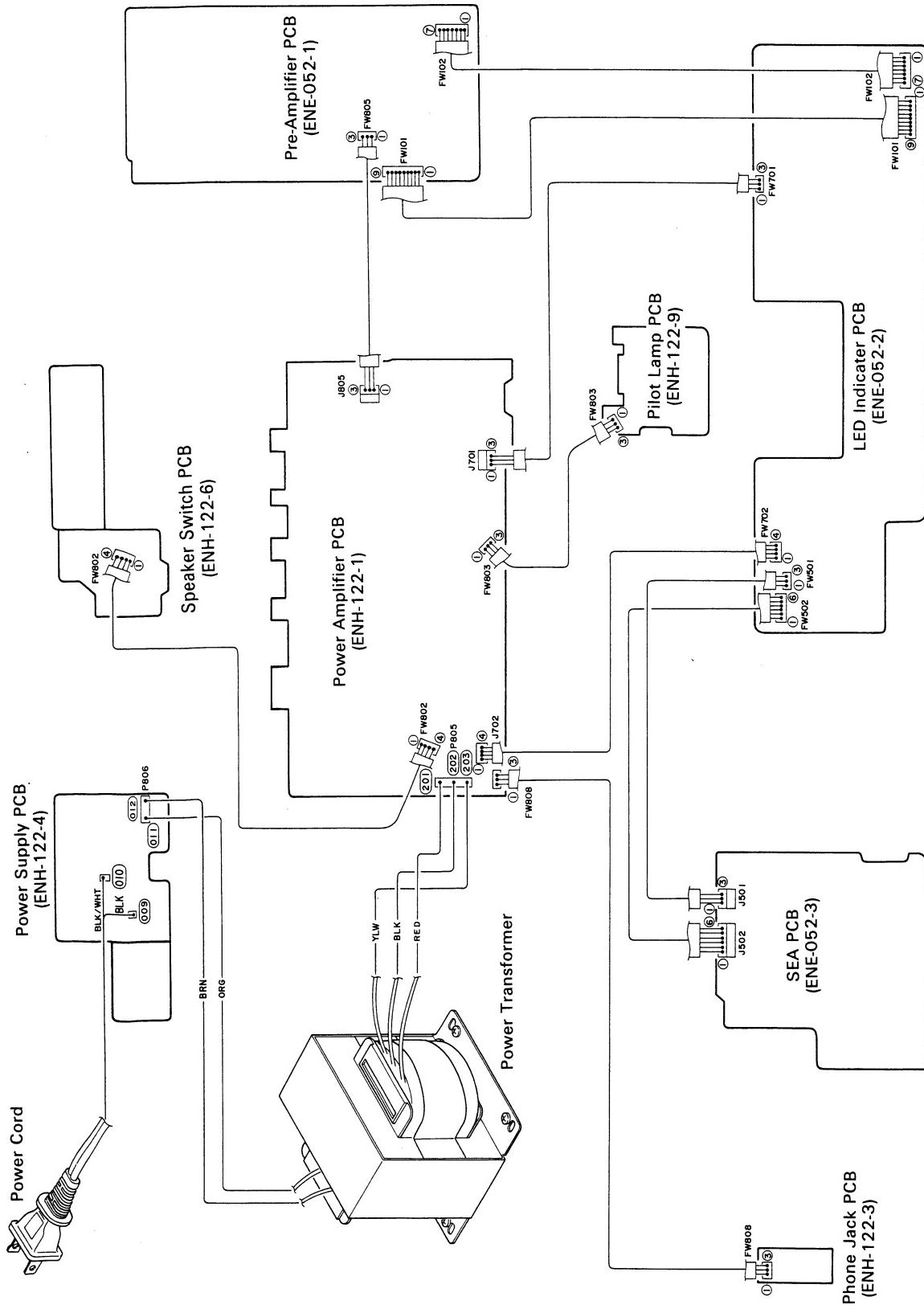
■ IR2E19 (IC401, IC402)



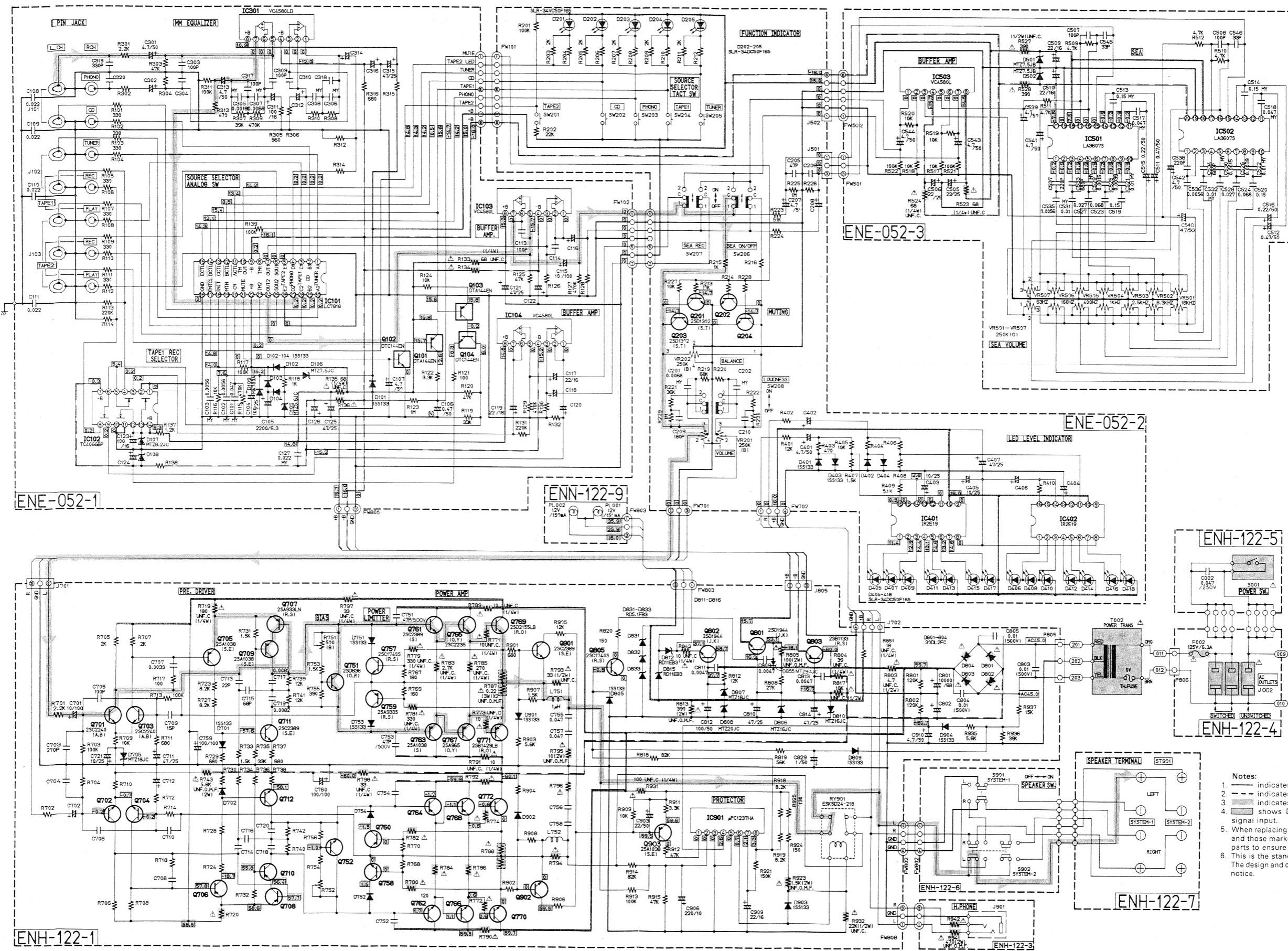
■ μ PC1237HA (IC901)



Connection Diagram

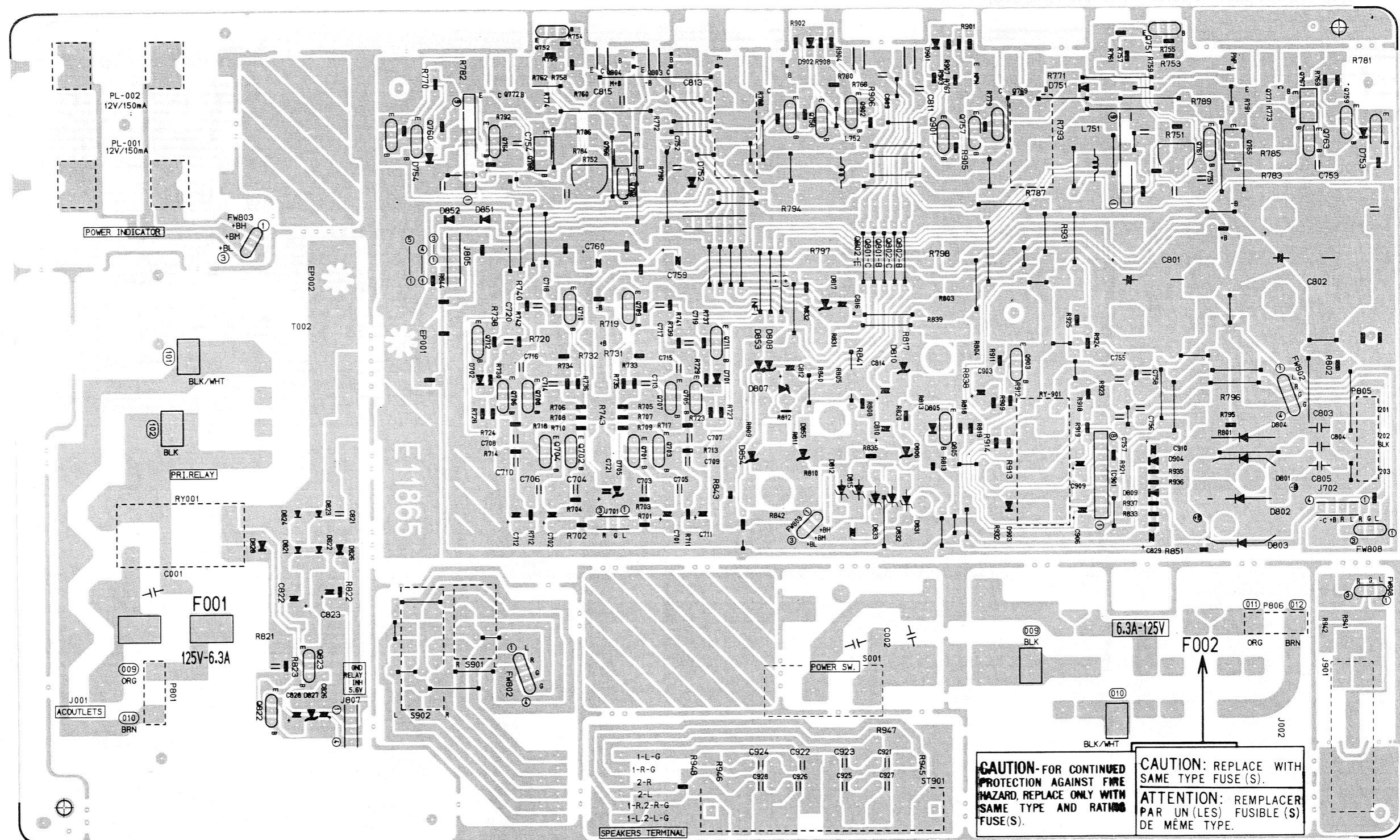


Schematic Diagram

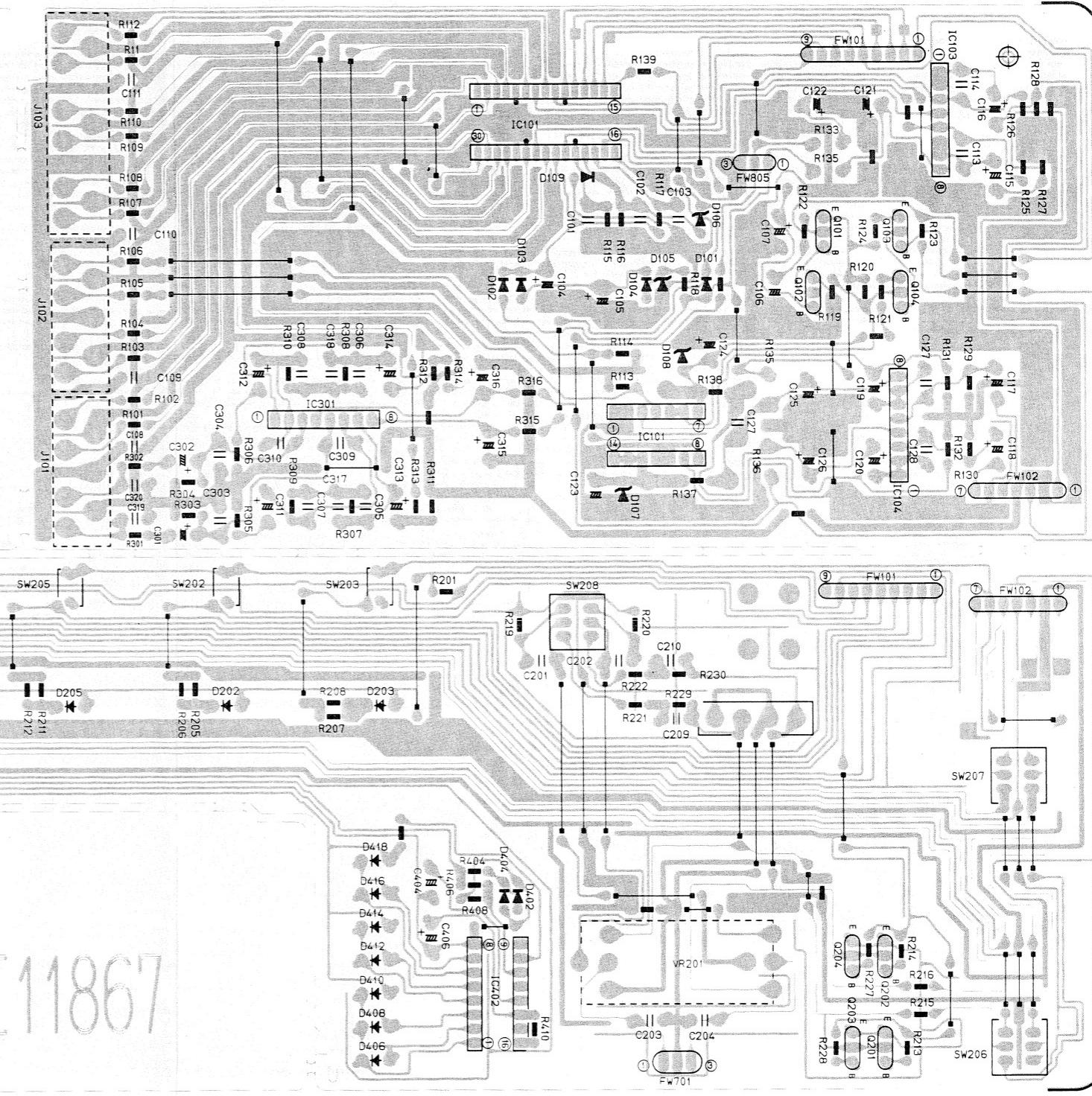
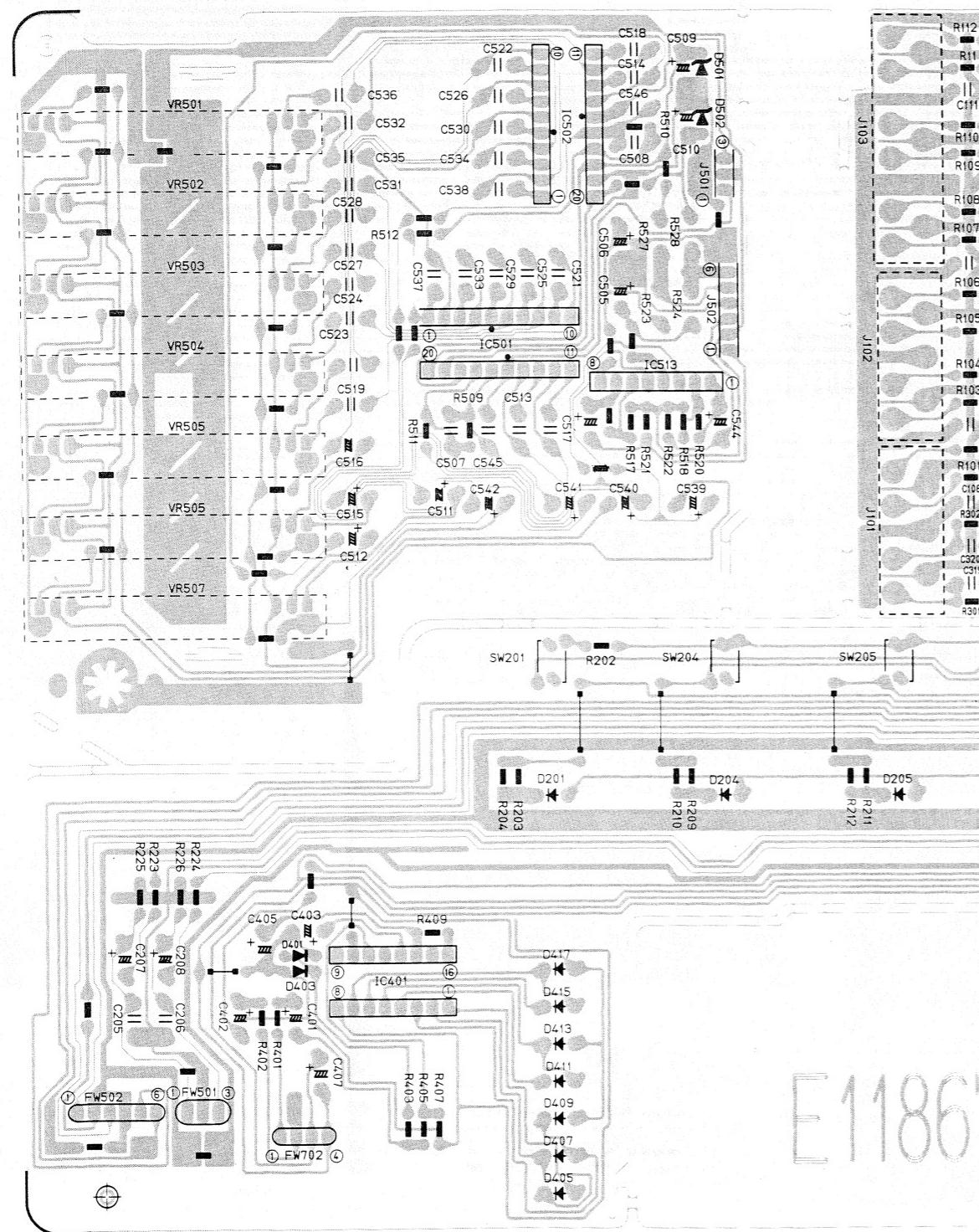


Printed Circuit Board Ass

■ Main Amplifier/Power Supply P.C. Board (ENH-122)



■ Pre-Amplifier/SEA/LED Indicator P.C. Board (ENE-052)



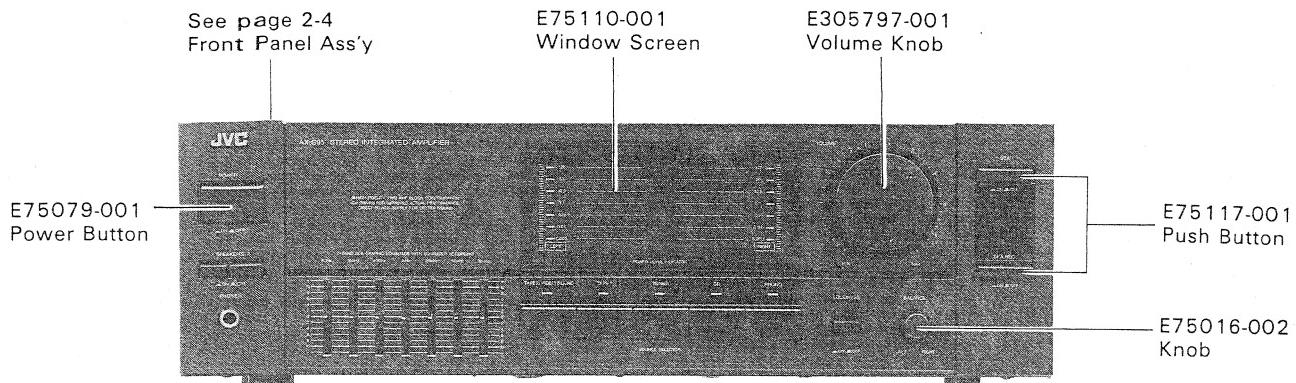
PARTS LIST

Contents

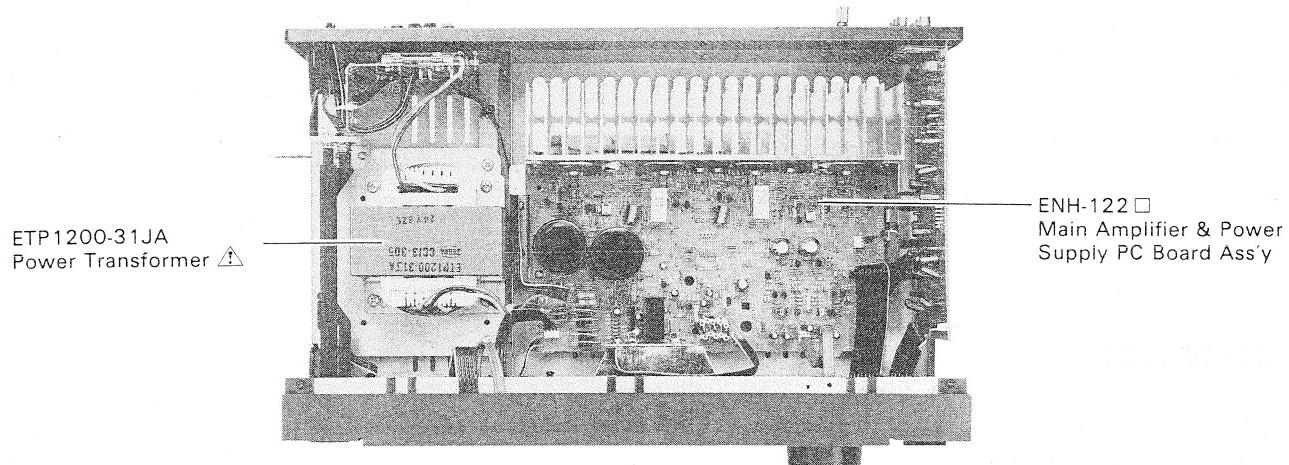
Main Parts Locations	2-2
Exploded View and Parts List.....	2-3
Printed Circuit Board Ass'y and Parts List	2-5
■ ENE-052 □ Input Selector/SEA/EQ PC Board Ass'y.....	2-5
■ ENH-122 □ Main Amplifier & Power Supply PC Board Ass'y	2-8
Accessories List.....	2-10
Packing Materials and Part Numbers.....	2-11

Main Parts Locations

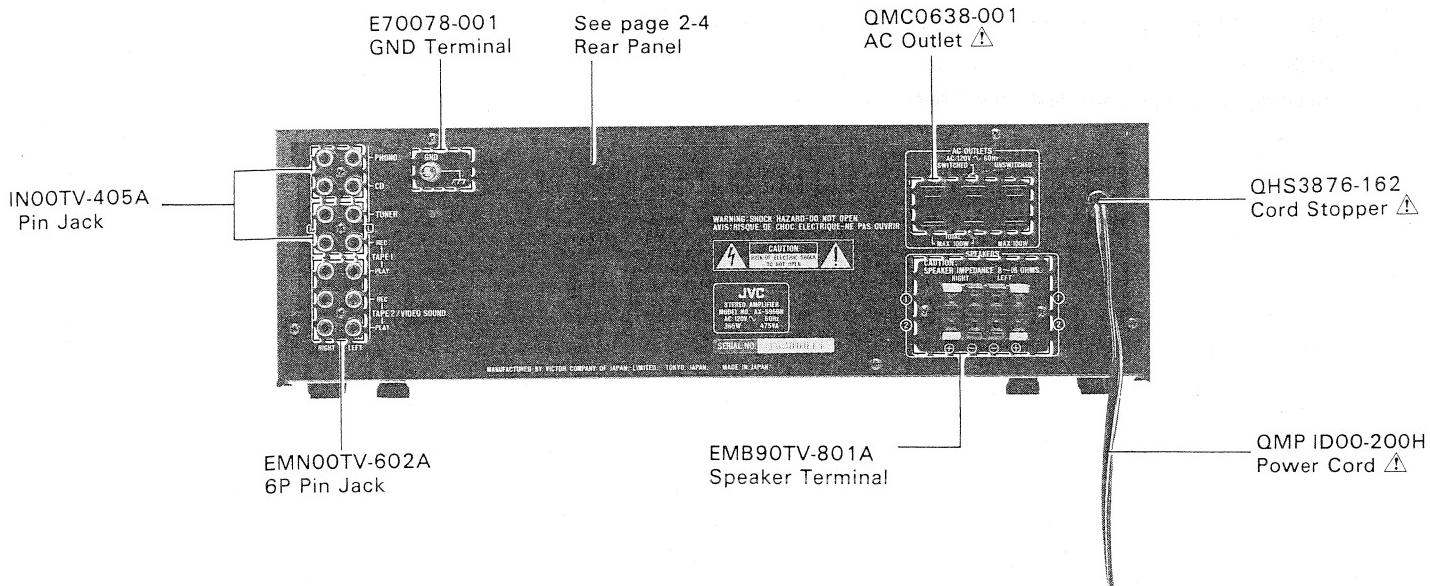
■ Front View



■ Top View

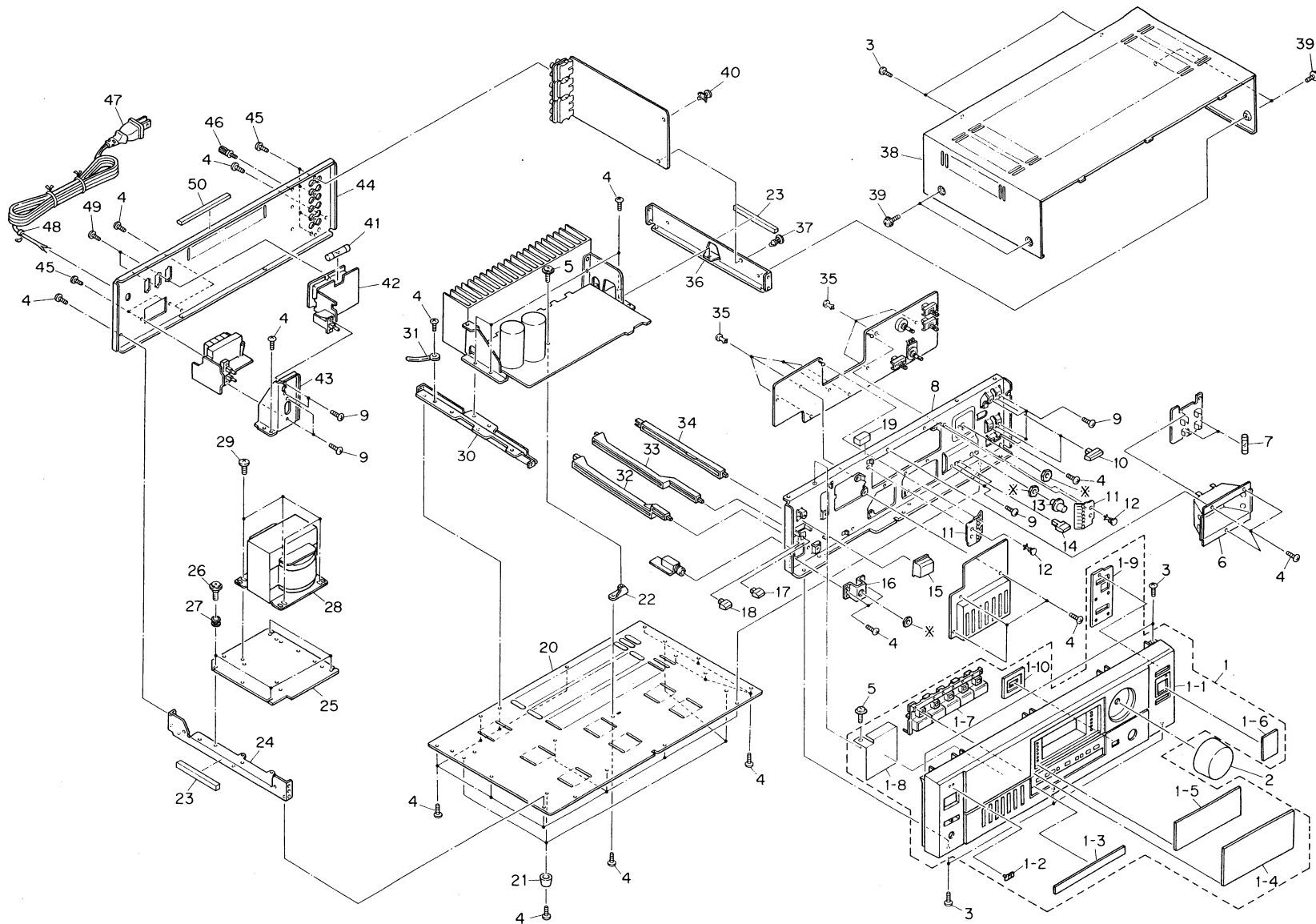


■ Rear View



Exploded View and Parts List

AX-S95BK
AX-S95XBK



※ mark indicates attached part.

Note (1)

PC Board Ass'y	Designated Areas
ENE-052 [A]	the U.S.A.
ENE-052 [B]	Canada

TRANSISTORS

△ ITEM	PART NUMBER	DESCRIPTION	AREA	MAKER
Q101	DTA144ES	SILICON	ROHM	
Q102	DTC144ES	SILICON	ROHM	
Q103	DTA144ES	SILICON	ROHM	
Q104	DTC144ES	SILICON	ROHM	
Q201	ZSC3068	SILICON	SANYO	
Q202	ZSC3068	SILICON	SANYO	
Q203	ZSC3068	SILICON	SANYO	
Q204	ZSC3068	SILICON	SANYO	

I. C. S

△ ITEM	PART NUMBER	DESCRIPTION	AREA	MAKER
IC101	LC7818	I.C.	SANYO	
IC102	TC4066BP	I.C.	TOSHIBA	
IC103	VC4580L	I.C.	JRC	
IC104	VC4580L	I.C.	JRC	
IC301	VC4580LD	I.C.	JRC	
IC401	IR2E19	I.C.	SHARP	
IC402	IR2E19	I.C.	SHARP	
IC501	LA3607S	I.C.	SANYO	
IC502	LA3607S	I.C.	SANYO	
IC503	VC4580L	I.C.		

DIODES

△ ITEM	PART NUMBER	DESCRIPTION	AREA	MAKER
D101	1SS133	SILICON	ROHM	
D102	1SS133	SILICON	ROHM	
D103	1SS133	SILICON	ROHM	
D104	1SS133	SILICON	ROHM	
D105	MTZ5.6JC	ZENER	ROHM	
D106	MTZ7.5JC	ZENER	ROHM	
D107	MTZ8.2JC	ZENER	ROHM	
D108	MTZ8.2JC	ZENER	ROHM	
D109	MA700A	ZENER	MATSUSHITA	
D201	SLR-34VC50F165	L.E.D.	ROHM	
D202	SLR-34DC50F165	L.E.D.	ROHM	
D203	SLR-34DC50F165	L.E.D.	ROHM	
D204	SLR-34DC50F165	L.E.D.	ROHM	
D205	SLR-34DC50F165	L.E.D.	ROHM	
D401	1SS133	SILICON	ROHM	
D402	1SS133	SILICON	ROHM	
D403	1SS133	SILICON	ROHM	
D404	1SS133	SILICON	ROHM	
D405	SLR-34DC50F165	L.E.D.	ROHM	
D406	SLR-34DC50F165	L.E.D.	ROHM	
D407	SLR-34DC50F165	L.E.D.	ROHM	
D408	SLR-34DC50F165	L.E.D.	ROHM	
D409	SLR-34DC50F165	L.E.D.	ROHM	
D410	SLR-34DC50F165	L.E.D.	ROHM	
D411	SLR-34DC50F165	L.E.D.	ROHM	
D412	SLR-34DC50F165	L.E.D.	ROHM	
D413	SLR-34DC50F165	L.E.D.	ROHM	
D414	SLR-34DC50F165	L.E.D.	ROHM	
D415	SLR-34DC50F165	L.E.D.	ROHM	
D416	SLR-34DC50F165	L.E.D.	ROHM	
D417	SLR-34DC50F165	L.E.D.	ROHM	
D418	SLR-34DC50F165	L.E.D.	ROHM	
D501	MTZ7.5JC	ZENER	ROHM	
D502	MTZ7.5JC	ZENER	ROHM	

CAPACITORS

△ ITEM	PART NUMBER	DESCRIPTION	AREA
C101	QFN81HK-473	0.047MF 50V	MYLAR
C102	QFN81HK-562	5600PF 50V	MYLAR
C103	QFN81HK-562	5600PF 50V	MYLAR

CAPACITORS

△ ITEM	PART NUMBER	DESCRIPTION	AREA
C104	QETB1EM-107	100MF 25V	ELECTRO
C105	QETB0JM-228	2200MF 6.3V	ELECTRO
C106	QEN51HM-474	0.47MF 50V	NON POLE
C107	QETB1HM-475	4.7MF 50V	ELECTRO
C108	QCF21HP-223	0.022MF 50V	CERAMIC
C109	QCF21HP-223	0.022MF 50V	CERAMIC
C110	QCF21HP-223	0.022MF 50V	CERAMIC
C111	QCF21HP-223	0.022MF 50V	CERAMIC
C113	QCS21HJ-101	100PF 50V	CERAMIC
C114	QCS21HJ-101	100PF 50V	CERAMIC
C115	EEZ1005-106	10MF 100V	ELECTRO
C116	EEZ1005-106	10MF 100V	ELECTRO
C117	QETB1CM-226	22MF 16V	ELECTRO
C118	QETB1CM-226	22MF 16V	ELECTRO
C119	QETB1CM-226	22MF 16V	ELECTRO
C120	QETB1CM-226	22MF 16V	ELECTRO
C121	QETB1EM-476	4.7MF 25V	ELECTRO
C122	QETB1EM-476	4.7MF 25V	ELECTRO
C123	QETB1CM-107	100MF 16V	ELECTRO
C124	QETB1CM-107	100MF 16V	ELECTRO
C125	QETB1EM-476	4.7MF 25V	ELECTRO
C126	QETB1EM-476	4.7MF 25V	ELECTRO
C127	QFN81HK-223	0.022MF 50V	MYLAR
C201	QFN81HK-682	6800PF 50V	MYLAR
C202	QFN81HK-682	6800PF 50V	MYLAR
C205	QCS21HJ-470	47PF 50V	CERAMIC
C206	QCS21HJ-470	47PF 50V	CERAMIC
C207	QEK61HM-475	4.7MF 50V	ELECTRO
C208	QEK61HM-475	4.7MF 50V	ELECTRO
C209	QCS21HJ-181	180PF 50V	CERAMIC
C210	QCS21HJ-181	180PF 50V	CERAMIC
C301	QETB1HM-475	4.7MF 50V	ELECTRO
C302	QETB1HM-475	4.7MF 50V	ELECTRO
C303	QCS21HJ-101	100PF 50V	CERAMIC
C304	QCS21HJ-101	100PF 50V	CERAMIC
C305	QFN81HJ-182	1800PF 50V	MYLAR
C306	QFN81HJ-182	1800PF 50V	MYLAR
C307	QFN81HJ-682	6800PF 50V	MYLAR
C308	QFN81HJ-682	6800PF 50V	MYLAR
C309	QCS21HJ-101	100PF 50V	CERAMIC
C310	QCS21HJ-101	100PF 50V	CERAMIC
C311	QETB1CM-107	100MF 16V	ELECTRO
C312	QETB1CM-107	100MF 16V	ELECTRO
C313	QETB1HM-475	4.7MF 50V	ELECTRO
C314	QETB1HM-475	4.7MF 50V	ELECTRO
C315	QETB1EM-476	4.7MF 25V	ELECTRO
C316	QETB1EM-476	4.7MF 25V	ELECTRO
C317	QCS21HJ-101	100PF 50V	CERAMIC
C318	QCS21HJ-101	100PF 50V	CERAMIC
C319	QCS21HJ-331	330PF 50V	CERAMIC
C320	QCS21HJ-331	330PF 50V	CERAMIC
C401	QEK61HM-475	4.7MF 50V	ELECTRO
C402	QEK61HM-475	4.7MF 50V	ELECTRO
C403	QEK61EM-106	10MF 25V	ELECTRO
C404	QEK61EM-106	10MF 25V	ELECTRO
C405	QEK61EM-106	10MF 25V	ELECTRO
C406	QEK61EM-106	10MF 25V	ELECTRO
C407	QEK61EM-476	4.7MF 25V	ELECTRO
C505	QETB1EM-226	22MF 25V	ELECTRO
C506	QETB1EM-226	22MF 25V	ELECTRO
C507	QCS21HJ-101	100PF 50V	CERAMIC
C508	QCS21HJ-101	100PF 50V	CERAMIC
C509	QETB1CM-226	22MF 16V	ELECTRO
C510	QETB1CM-226	22MF 16V	ELECTRO
C511	QEK61HM-474G	0.47MF 50V	ELECTRO
C512	QEK61HM-474G	0.47MF 50V	ELECTRO
C513	QFN81HJ-154	0.15MF 50V	MYLAR
C514	QFN81HJ-154	0.15MF 50V	MYLAR
C515	QEK61HM-224G	0.22MF 50V	ELECTRO
C516	QEK61HM-224G	0.22MF 50V	ELECTRO
C517	QFN81HJ-473	0.047MF 50V	MYLAR
C518	QFN81HJ-473	0.047MF 50V	MYLAR
C519	QFV81HJ-154	0.15MF 50V	T-FILM
C520	QFV81HJ-154	0.15MF 50V	T-FILM
C521	QFN81HJ-103	0.01MF 50V	MYLAR
C522	QFN81HJ-103	0.01MF 50V	MYLAR
C523	QFN81HJ-683	0.068MF 50V	MYLAR
C524	QFN81HJ-683	0.068MF 50V	MYLAR
C525	QCY21HK-392	3900PF 50V	CERAMIC
C526	QCY21HK-392	3900PF 50V	CERAMIC
C527	QFN81HJ-273	0.027MF 50V	MYLAR
C528	QFN81HJ-273	0.027MF 50V	MYLAR
C529	QFN81HJ-152	1500PF 50V	MYLAR
C530	QFN81HJ-152	1500PF 50V	MYLAR
C531	QFN81HJ-103	0.01MF 50V	MYLAR
C532	QFN81HJ-103	0.01MF 50V	MYLAR
C533	QCS21HJ-681	680PF 50V	CERAMIC
C534	QCS21HJ-681	680PF 50V	CERAMIC
C535	QCY21HK-562	5600PF 50V	CERAMIC
C536	QCY21HK-562	5600PF 50V	CERAMIC
C537	QCS21HJ-221	220PF 50V	CERAMIC
C538	QCS21HJ-221	220PF 50V	CERAMIC
C539	QETB1HM-475	4.7MF 50V	ELECTRO
C540	QETB1HM-475	4.7MF 50V	ELECTRO
C541	QETB1HM-475	4.7MF 50V	ELECTRO
C542	QETB1HM-475	4.7MF 50V	ELECTRO

△ : SAFETY PARTS

C A P A C I T O R S

▲	ITEM	PART NUMBER	D E S C R I P T I O N			AREA
	C543	QETB1HM-475	4.7MF	50V	ELECTRO	
	C544	QETB1HM-475	4.7MF	50V	ELECTRO	
	C545	QCS21HJ-330	33PF	50V	CERAMIC	
	C546	QCS21HJ-330	33PF	50V	CERAMIC	

R E S I S T O R S

▲	ITEM	PART NUMBER	D E S C R I P T I O N			AREA
	R316	QRD167J-681	680	1/6W	CARBON	
	R401	QRD167J-123	12K	1/6W	CARBON	
	R402	QRD167J-123	12K	1/6W	CARBON	
	R403	QRD167J-471	470	1/6W	CARBON	
	R404	QRD167J-471	470	1/6W	CARBON	
	R405	QRD167J-103	10K	1/6W	CARBON	
	R406	QRD167J-103	10K	1/6W	CARBON	
	R407	QRD167J-152	1.5K	1/6W	CARBON	
	R408	QRD167J-152	1.5K	1/6W	CARBON	
	R409	QRD167J-512	5.1K	1/6W	CARBON	
	R410	QRD167J-512	5.1K	1/6W	CARBON	
	R509	QRD167J-472	4.7K	1/6W	CARBON	
	R510	QRD167J-472	4.7K	1/6W	CARBON	
	R511	QRD167J-472	4.7K	1/6W	CARBON	
	R512	QRD167J-472	4.7K	1/6W	CARBON	
	R517	QRD167J-103	10K	1/6W	CARBON	
	R518	QRD167J-103	10K	1/6W	CARBON	
	R519	QRD167J-103	10K	1/6W	CARBON	
	R520	QRD167J-103	10K	1/6W	CARBON	
	R521	QRD167J-104	100K	1/6W	CARBON	
	R522	QRD167J-104	100K	1/6W	CARBON	
▲	R523	QRD14CJ-680S	68	1/4W	UNF.CARBON	
▲	R524	QRD14CJ-680S	68	1/4W	UNF.CARBON	
	R527	QRD12CJ-391S	390	1/2W	R.NETWORK	
	R528	QRD12CJ-391S	390	1/2W	R.NETWORK	
	VR201	QVN9A3B-5F5V	250K	VARIABLE		
	VR202	QVD487W-EF5B	250K	VARIABLE		
	VR501	QVUB08W-EF5B	250K	VARIABLE		
	VR502	QVUB08W-EF5B	250K	VARIABLE		
	VR503	QVUB08W-EF5B	250K	VARIABLE		
	VR504	QVUB08W-EF5B	250K	VARIABLE		
	VR505	QVUB08W-EF5B	250K	VARIABLE		
	VR506	QVUB08W-EF5B	250K	VARIABLE		
	VR507	QVUB08W-EF5B	250K	VARIABLE		

O T H E R S

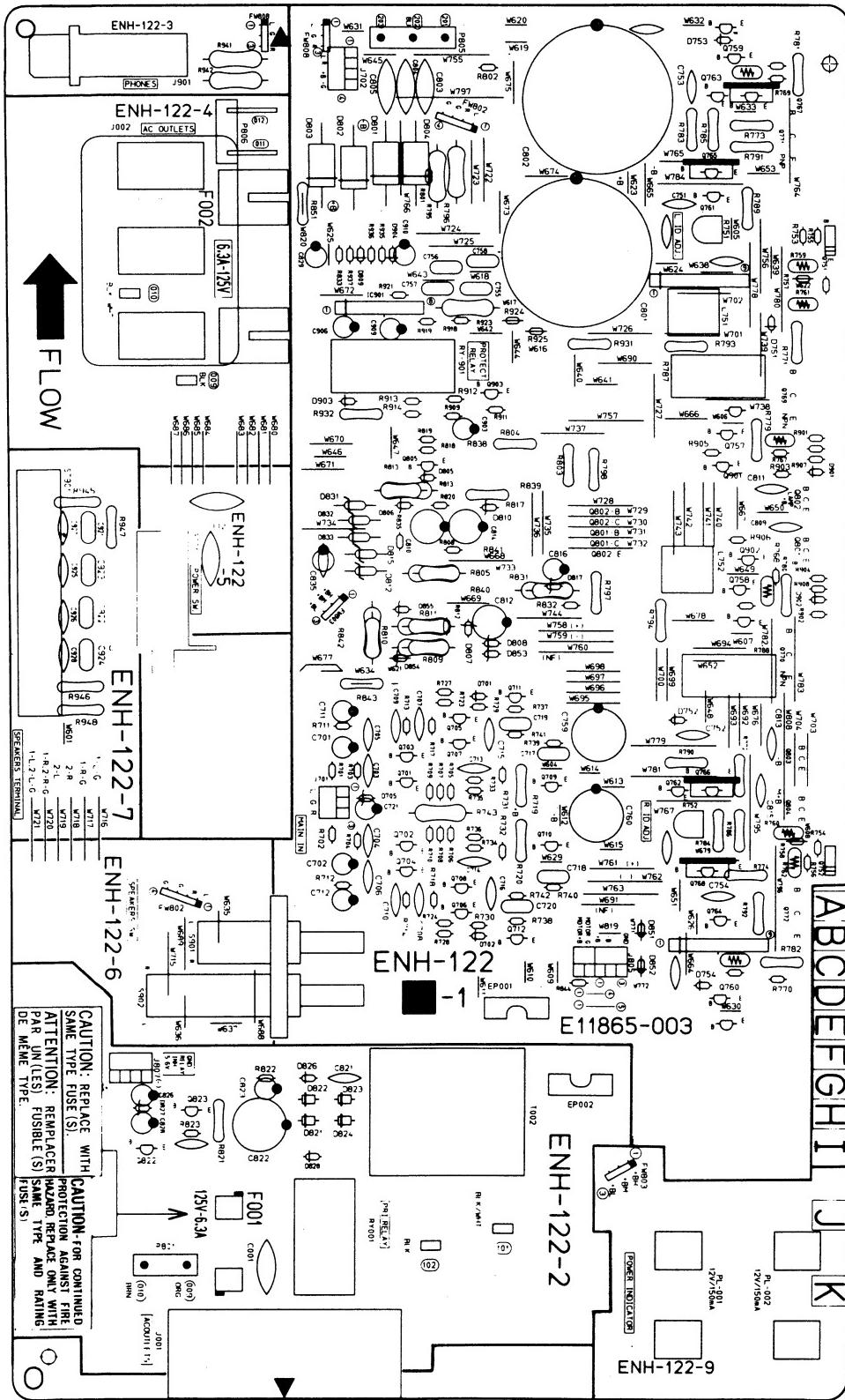
▲	ITEM	PART NUMBER	D E S C R I P T I O N			AREA
	E11867-003		CIRCUIT BOARD			
	J101	EMN00TV-405A	4P PIN JACK			
	J102	EMN00TV-405A	4P PIN JACK			
	J103	EMN00TV-602A	6P PIN JACK			
	J501	EMV7122-003	CONNECTOR			
	BK501	E306036-001	SHIELD BRACKET			
	EP003	E70859-001	EARTH PLATE			
	FW101	EWR398-20SSST	FLAT WIRE			
	FW102	EWR378-16SSST	FLAT WIRE			
	FW503	EWR23C-13LN	FLAT WIRE			
	FW502	EWR368-13LST	FLAT WIRE			
	FW701	EWR23C-16LN	FLAT WIRE			
	FW702	EWR34B-16LST	FLAT WIRE			
	FW805	EWR33B-13LST	FLAT WIRE			
	JT501	EMV7122-003	CONNECTOR			
	JT502	EMV7122-003	CONNECTOR			
	SW201	ESP0001-018	TACT SWITCH			
	SW202	ESP0001-018	TACT SWITCH			
	SW203	ESP0001-018	TACT SWITCH			
	SW204	ESP0001-018	TACT SWITCH			
	SW205	ESP0001-018	TACT SWITCH			
	SW206	QSTL101-E01	PUSH SWITCH			
	SW207	QSTL101-E01	PUSH SWITCH			
	SW208	QSTL101-E01	PUSH SWITCH			

R E S I S T O R S

▲	ITEM	PART NUMBER	D E S C R I P T I O N			AREA
	R101	QRD167J-331	330	1/6W	CARBON	
	R102	QRD167J-331	330	1/6W	CARBON	
	R103	QRD167J-331	330	1/6W	CARBON	
	R104	QRD167J-331	330	1/6W	CARBON	
	R105	QRD167J-331	330	1/6W	CARBON	
	R106	QRD167J-331	330	1/6W	CARBON	
	R107	QRD167J-331	330	1/6W	CARBON	
	R108	QRD167J-331	330	1/6W	CARBON	
	R109	QRD167J-331	330	1/6W	CARBON	
	R110	QRD167J-331	330	1/6W	CARBON	
	R111	QRD167J-331	330	1/6W	CARBON	
	R112	QRD167J-331	330	1/6W	CARBON	
	R113	QRD167J-224	220K	1/6W	CARBON	
	R114	QRD167J-224	220K	1/6W	CARBON	
	R115	QRD167J-474	470K	1/6W	CARBON	
	R116	QRD167J-103	10K	1/6W	CARBON	
	R117	QRD167J-104	100K	1/6W	CARBON	
	R118	QRD167J-102	1K	1/6W	CARBON	
	R119	QRD167J-333	33K	1/6W	CARBON	
	R120	QRD167J-473	47K	1/6W	CARBON	
	R121	QRD167J-101	100	1/6W	CARBON	
	R122	QRD167J-332	3.3K	1/6W	CARBON	
	R123	QRD167J-105	1M	1/6W	CARBON	
	R124	QRD167J-103	10K	1/6W	CARBON	
	R125	QRD167J-473	47K	1/6W	CARBON	
	R126	QRD167J-473	47K	1/6W	CARBON	
	R127	QRD167J-474	470K	1/6W	CARBON	
	R128	QRD167J-474	470K	1/6W	CARBON	
	R129	QRD167J-474	470K	1/6W	CARBON	
	R130	QRD167J-474	470K	1/6W	CARBON	
▲	R131	QRD167J-224	220K	1/6W	CARBON	
▲	R132	QRD167J-224	220K	1/6W	CARBON	
▲	R133	QRD14CJ-680S	68	1/4W	UNF.CARBON	
▲	R134	QRD14CJ-680S	68	1/4W	UNF.CARBON	
▲	R135	QRD14CJ-680S	68	1/4W	UNF.CARBON	
	R136	QRD14CJ-680S	68	1/4W	UNF.CARBON	
	R137	QRD167J-122	1.2K	1/6W	CARBON	
	R138	QRD167J-122	1.2K	1/6W	CARBON	
	R139	QRD167J-104	100K	1/6W	CARBON	
	R201	QRD167J-104	100K	1/6W	CARBON	
	R202	QRD167J-223	22K	1/6W	CARBON	
	R203	QRD167J-202	2K	1/6W	CARBON	
	R204	QRD167J-202	2K	1/6W	CARBON	
	R205	QRD167J-202	2K	1/6W	CARBON	
	R206	QRD167J-202	2K	1/6W	CARBON	
	R207	QRD167J-202	2K	1/6W	CARBON	
	R208	QRD167J-202	2K	1/6W	CARBON	
	R209	QRD167J-202	2K	1/6W	CARBON	
	R210	QRD167J-202	2K	1/6W	CARBON	
	R211	QRD167J-202	2K	1/6W	CARBON	
	R212	QRD167J-202	2K	1/6W	CARBON	
	R213	QRD167J-103	10K	1/6W	CARBON	
	R214	QRD167J-103	10K	1/6W	CARBON	
	R215	QRD167J-102	1K	1/6W	CARBON	
	R216	QRD167J-102	1K	1/6W	CARBON	
	R217	QRD167J-683	68K	1/6W	CARBON	
	R220	QRD167J-683	68K	1/6W	CARBON	
	R221	QRD167J-363	36K	1/6W	CARBON	
	R222	QRD167J-363	36K	1/6W	CARBON	
	R223	QRD167J-513	51K	1/6W	CARBON	
	R224	QRD167J-513	51K	1/6W	CARBON	
	R225	QRD167J-105	1M	1/6W	CARBON	
	R226	QRD167J-105	1M	1/6W	CARBON	
	R227	QRD167J-103	10K	1/6W	CARBON	
	R228	QRD167J-103	10K	1/6W	CARBON	
	R229	QRD167J-105	1M	1/6W	CARBON	
	R230	QRD167J-105	1M	1/6W	CARBON	
	R301	QRD167J-222	2.2K	1/6W	CARBON	
	R302	QRD167J-222	2.2K	1/6W	CARBON	
	R303	QRD167J-473	47K	1/6W	CARBON	
	R304	QRD167J-473	47K	1/6W	CARBON	
	R305	QRD167J-561	560	1/6W	CARBON	
	R306	QRD167J-561	560	1/6W	CARBON	
	R307	QRD167J-393	39K	1/6W	CARBON	
	R308	QRD167J-393	39K	1/6W	CARBON	
	R309	QRD167J-474	470K	1/6W	CARBON	
	R310	QRD167J-474	470K	1/6W	CARBON	
	R311	QRD167J-104	100K	1/6W	CARBON	
	R312	QRD167J-104	100K	1/6W	CARBON	
	R313	QRD167J-471	470	1/6W	CARBON	
	R314	QRD167J-471	470	1/6W	CARBON	
	R315	QRD167J-681	680	1/6W	CARBON	

I ENH-122 □ Main Amplifier & Power Supply PC Board Ass'y

Note: ENH-122 □ Varies according to the area employed. See note (1) when placing an order.



Note (1)

PC Board Ass'y	Designated Areas
ENH-122 [C]	the U.S.A.
ENH-122 [D]	Canada

TRANSISTORS

△	ITEM	PART NUMBER	DESCRIPTION		AREA
			MAKER		
	Q701	2SC2240(A,B)	SILICON	TOSHIBA	
	Q702	2SC2240(A,B)	SILICON	TOSHIBA	
	Q703	2SC2240(A,B)	SILICON	TOSHIBA	
	Q704	2SC2240(A,B)	SILICON	TOSHIBA	
	Q705	2SA1038(S,E)	SILICON	ROHM	
	Q706	2SA1038(S,E)	SILICON	ROHM	
	Q707	2SA933LN(R,S)	SILICON	ROHM	
	Q708	2SA933LN(R,S)	SILICON	ROHM	
	Q709	2SA1038(S,E)	SILICON	ROHM	
	Q710	2SA1038(S,E)	SILICON	ROHM	
	Q711	2SC2389(S,E)	SILICON	ROHM	
	Q712	2SC2389(S,E)	SILICON	ROHM	
	Q751	2SD636(Q,R)	SILICON	MATSUSHITA	
	Q752	2SD636(Q,R)	SILICON	MATSUSHITA	
	Q757	2SC1740S(R,S)	SILICON	ROHM	
	Q758	2SC1740S(R,S)	SILICON	ROHM	
	Q759	2SA933S(R,S)	SILICON	ROHM	
	Q760	2SA933S(R,S)	SILICON	ROHM	
	Q761	2SC2389(S)	SILICON	ROHM	
	Q762	2SC2389(S)	SILICON	ROHM	
	Q763	2SA1038(S)	SILICON	ROHM	
	Q764	2SA1038(S)	SILICON	ROHM	
	Q765	2SC2235(O,Y)	SILICON	TOSHIBA	
	Q766	2SC2235(O,Y)	SILICON	TOSHIBA	
	Q767	2SA965(O,Y)	SILICON	TOSHIBA	
	Q768	2SA965(O,Y)	SILICON	TOSHIBA	
	Q769	2SD2155LB(R,O)	SILICON	TOSHIBA	
	Q770	2SD2155LB(R,O)	SILICON	TOSHIBA	
	Q771	2SB1429LB(R,O)	SILICON	TOSHIBA	
	Q772	2SB1429LB(R,O)	SILICON	TOSHIBA	
	Q801	2SD1944(J,K)	SILICON	ROHM	
	Q802	2SD1944(J,K)	SILICON	ROHM	
	Q803	2SB1133(R,S)	SILICON	SANYO	
	Q805	2SC1740S(R,S)	SILICON	ROHM	
	Q901	2SC2389(S,E)	SILICON	ROHM	
	Q902	2SC2389(S,E)	SILICON	ROHM	
	Q903	2SA1038(S,E)	SILICON	ROHM	

I. C. S

△	ITEM	PART NUMBER	DESCRIPTION		AREA
			MAKER		
	IC901	UPC1237HA	I.C.	NEC	

DIODES

△	ITEM	PART NUMBER	DESCRIPTION		AREA
			MAKER		
	D701	1SS133	SILICON	ROHM	
	D702	1SS133	SILICON	ROHM	
	D705	MTZ18JC	ZENER	ROHM	
	D751	1SS133	SILICON	ROHM	
	D752	1SS133	SILICON	ROHM	
	D753	1SS133	SILICON	ROHM	
	D754	1SS133	SILICON	ROHM	
	D801	30DL2FC	SILICON	NIHONINTER	
	D802	30DL2FC	SILICON	NIHONINTER	
	D803	30DL2FC	SILICON	NIHONINTER	
	D804	30DL2FC	SILICON	NIHONINTER	
	D805	1SS133	SILICON	ROHM	
	D806	MTZ16JC	ZENER	ROHM	
	D807	MTZ18JC	ZENER	ROHM	
	D808	MTZ20JC	ZENER	ROHM	
	D809	1SS133	SILICON	ROHM	
	D810	MTZ16JC	ZENER	ROHM	
	D812	RD11EB3	ZENER	NEC	
	D815	RD11EB3	ZENER	NEC	
	D831	RDS.1FB3	ZENER	NEC	

DIODES

△	ITEM	PART NUMBER	DESCRIPTION		AREA
			MAKER		
	D832	RDS.1FB3	ZENER	NEC	
	D833	RDS.1FB3	ZENER	NEC	
	D855	MTZ9.1JC	ZENER	ROHM	
	D901	1SS133	SILICON	ROHM	
	D902	1SS133	SILICON	ROHM	
	D903	1SS133	SILICON	ROHM	
	D904	1SS133	SILICON	ROHM	

CAPACITORS

△	ITEM	PART NUMBER	DESCRIPTION		AREA
			MAKER		
	C002	QCZ9019-472	4700PF		CERAMIC
	C701	EE21005-106	10MF	100V	ELECTRO
	C702	EE21005-106	10MF	100V	ELECTRO
	C703	QCS21HJ-271	270PF	50V	CERAMIC
	C704	QCS21HJ-271	270PF	50V	CERAMIC
	C705	QCS21HJ-101	100PF	50V	CERAMIC
	C706	QCS21HJ-101	100PF	50V	CERAMIC
	C707	QCY21HK-332	3300PF	50V	CERAMIC
	C708	QCY21HK-332	3300PF	50V	CERAMIC
	C709	QCS21HJ-150	15PF	50V	CERAMIC
	C710	QCS21HJ-150	15PF	50V	CERAMIC
	C711	QETB1EM-476	47MF	16V	ELECTRO
	C712	QETB1EM-476	47MF	16V	ELECTRO
	C713	QCS21HJ-220	22PF	50V	CERAMIC
	C714	QCS21HJ-220	22PF	50V	CERAMIC
	C715	QCS21HJ-680	68PF	50V	CERAMIC
	C716	QCS21HJ-680	68PF	50V	CERAMIC
	C717	QFN81HJ-822	8200PF	50V	MYLAR
	C718	QFN81HJ-822	8200PF	50V	MYLAR
	C719	QFN81HJ-822	8200PF	50V	MYLAR
	C720	QFN81HJ-822	8200PF	50V	MYLAR
	C721	QETB1EM-106	10MF	25V	ELECTRO
	C751	QCS22HJ-470A	47PF	500V	CERAMIC
	C752	QCS22HJ-470A	47PF	500V	CERAMIC
	C753	QCS22HJ-470A	47PF	500V	CERAMIC
	C754	QCS22HJ-470A	47PF	500V	CERAMIC
	C755	QFN81HK-473	0.047MF	50V	MYLAR
	C756	QFN81HK-473	0.047MF	50V	MYLAR
	C757	QFN81HK-473	0.047MF	50V	MYLAR
	C758	QFN81HK-473	0.047MF	50V	MYLAR
	C759	QETB2AM-107	100MF	100V	ELECTRO
	C760	QETB2AM-107	100MF	100V	ELECTRO
	C801	EEW6801-109E	10000MF	ELECTRO	
	C802	EEW6801-109E	10000MF	ELECTRO	
	C803	QCE22HP-103	0.01MF	500V	CERAMIC
	C804	QCE22HP-103	0.01MF	500V	CERAMIC
	C805	QCE22HP-103	0.01MF	500V	CERAMIC
	C809	QCF21HP-472	4700PF	50V	CERAMIC
	C810	QETB1EM-476	47MF	25V	ELECTRO
	C811	QCF21HP-472	4700PF	50V	CERAMIC
	C812	QETB1EM-107	100MF	50V	ELECTRO
	C813	QCF21HP-472	4700PF	50V	CERAMIC
	C814	QETB1EM-476	47MF	25V	ELECTRO
	C829	QETB1HM-105	1MF	50V	ELECTRO
	C903	QETB1HM-226	22MF	50V	ELECTRO
	C906	QETB1AM-227	220MF	10V	ELECTRO
	C909	QETB1CM-226	22MF	16V	ELECTRO
	C910	QETB1HM-475	4.7MF	50V	ELECTRO

RESISTORS

△	ITEM	PART NUMBER	DESCRIPTION		AREA
			MAKER		
	R701	QRD167J-222	2.2K	1/6W	CARBON
	R702	QRD167J-222	2.2K	1/6W	CARBON
	R703	QRD167J-104	100K	1/6W	CARBON
	R704	QRD167J-104	100K	1/6W	CARBON
	R705	QRD167J-202	2K	1/6W	CARBON
	R706	QRD167J-202	2K	1/6W	CARBON
	R707	QRD167J-202	2K	1/6W	CARBON
	R708	QRD167J-202	2K	1/6W	CARBON
	R709	QRD167J-103	10K	1/6W	CARBON
	R710	QRD167J-103	10K	1/6W	CARBON
	R711	QRD167J-681	680	1/6W	CARBON
	R712	QRD167J-681	680	1/6W	CARBON
	R713	QRD167J-104	100K	1/6W	CARBON
	R714	QRD167J-104	100K	1/6W	CARBON
	R717	QRD167J-101	100	1/6W	CARBON
	R718	QRD167J-101	100	1/6W	CARBON
	R719	QRD14CJ-181S	180	1/4W	UNF. CARBON
	R720	QRD14CJ-181S	180	1/4W	UNF. CARBON
	R723	QRD167J-822	8.2K	1/6W	CARBON
	R724	QRD167J-822	8.2K	1/6W	CARBON

△ : SAFETY PARTS

RESISTORS

ITEM	PART NUMBER	DESCRIPTION	AREA
R727	QRD167J-822	8.2K	1/6W CARBON
R728	QRD167J-822	8.2K	1/6W CARBON
R729	QRD167J-681	680	1/6W CARBON
R730	QRD167J-681	680	1/6W CARBON
R731	QRD167J-152	1.5K	1/6W CARBON
R732	QRD167J-152	1.5K	1/6W CARBON
R733	QRD167J-152	1.5K	1/6W CARBON
R734	QRD167J-152	1.5K	1/6W CARBON
R735	QRD167J-333	33K	1/6W CARBON
R736	QRD167J-333	33K	1/6W CARBON
R737	QRD167J-681	680	1/6W CARBON
R738	QRD167J-681	680	1/6W CARBON
R739	QRD167J-123	12K	1/6W CARBON
R740	QRD167J-123	12K	1/6W CARBON
R741	QRD167J-123	12K	1/6W CARBON
R742	QRD167J-123	12K	1/6W CARBON
R743	QRG022J-562A	5.6K	2W O.M.FILM
R751	QVPA601-501A	500	VARIABLE
R752	QVPA601-501A	500	VARIABLE
R753	QRD167J-152	1.5K	1/6W CARBON
R754	QRD167J-152	1.5K	1/6W CARBON
R755	QRD167J-391	390	1/6W CARBON
R756	QRD167J-391	390	1/6W CARBON
R767	QRD167J-161	160	1/6W CARBON
R768	QRD167J-161	160	1/6W CARBON
R769	QRD167J-161	160	1/6W CARBON
R770	QRD167J-161	160	1/6W CARBON
R771	QRD14CJ-100S	10	1/4W UNF.CARBON
R772	QRD14CJ-100S	10	1/4W UNF.CARBON
R773	QRD14CJ-100S	10	1/4W UNF.CARBON
R774	QRD14CJ-100S	10	1/4W UNF.CARBON
R779	QRD14CJ-331S	330	1/4W UNF.CARBON
R780	QRD14CJ-331S	330	1/4W UNF.CARBON
R781	QRD14CJ-331S	330	1/4W UNF.CARBON
R782	QRD14CJ-331S	330	1/4W UNF.CARBON
R783	QRD14CJ-272S	2.7K	1/4W UNF.CARBON
R784	QRD14CJ-272S	2.7K	1/4W UNF.CARBON
R785	QRD14CJ-271S	270	1/4W UNF.CARBON
R786	QRD14CJ-271S	270	1/4W UNF.CARBON
R787	ERFO32K-R22	0.22	3W CEMENT
R788	ERFO32K-R22	0.22	3W CEMENT
R789	QRD14CJ-100S	10	1/4W UNF.CARBON
R790	QRD14CJ-100S	10	1/4W UNF.CARBON
R791	QRD14CJ-100S	10	1/4W UNF.CARBON
R792	QRD14CJ-100S	10	1/4W UNF.CARBON
R793	QRD12CJ-330S	33	1/2W R.NETWORK
R794	QRD12CJ-330S	33	1/2W R.NETWORK
R795	QRG022J-100A	10	2W O.M.FILM
R796	QRG022J-100A	10	2W O.M.FILM
R797	QRD14CJ-330S	33	1/4W UNF.CARBON
R798	QRD14CJ-330S	33	1/4W UNF.CARBON
R801	QRD167J-124	120K	1/6W CARBON
R802	QRD167J-124	120K	1/6W CARBON
R803	QRD12CJ-4R7S	4.7	1/2W R.NETWORK
R804	QRD14CJ-390S	39	1/4W UNF.CARBON
R805	QRG022J-101A	100	2W O.M.FILM
R808	QRD167J-273	27K	1/6W CARBON
R812	QRD167J-123	12K	1/6W CARBON
R813	QRG022J-391A	390	2W O.M.FILM
R817	QRD12CJ-103S	10K	1/2W R.NETWORK
R818	QRD167J-123	12K	1/6W CARBON
R819	QRD167J-333	33K	1/6W CARBON
R820	QRD167J-151	150	1/6W CARBON
R843	QRD14CJ-100S	10	1/4W UNF.CARBON
R851	QRD14CJ-180S	18	1/4W UNF.CARBON
R901	QRD167J-681	680	1/6W CARBON
R902	QRD167J-681	680	1/6W CARBON
R903	QRD167J-562	5.6K	1/6W CARBON
R904	QRD167J-562	5.6K	1/6W CARBON

RESISTORS

ITEM	PART NUMBER	DESCRIPTION	AREA
R905	QRD167J-123	12K	1/6W CARBON
R906	QRD167J-123	12K	1/6W CARBON
R907	QRD167J-152	1.5K	1/6W CARBON
R908	QRD167J-152	1.5K	1/6W CARBON
R909	QRD167J-103	10K	1/6W CARBON
R911	QRD167J-332	3.3K	1/6W CARBON
R912	QRD167J-473	47K	1/6W CARBON
R913	QRD167J-104	100K	1/6W CARBON
R914	QRD167J-823	82K	1/6W CARBON
R918	QRD167J-822	8.2K	1/6W CARBON
R919	QRD167J-822	8.2K	1/6W CARBON
R921	QRD167J-154	150K	1/6W CARBON
R923	QRG022J-152A	1.5K	2W O.M.FILM
R924	QRD167J-151	150	1/6W CARBON
R925	QRD167J-131	130	1/6W CARBON
R931	QRD14CJ-101S	100	1/4W UNF.CARBON
R932	QRD12CJ-223S	22K	1/2W R.NETWORK
R935	QRD167J-562	5.6K	1/6W CARBON
R936	QRD167J-393	39K	1/6W CARBON
R937	QRD167J-153	15K	1/6W CARBON
R941	QRG022J-471A	470	2W O.M.FILM
R942	QRG022J-471A	470	2W O.M.FILM

OTHERS

ITEM	PART NUMBER	DESCRIPTION	AREA
	E03675-004	FUSE CLIP	
	E11865-003	CIRCUIT BOARD	
	E300209-026	HEAT SINK	
	E305804-001	INSTRUCTION BOOK	
	E305805-001	INSTRUCTION BOOK	
	E48269-001	SPACER	
	E48269-001	SPACER	
	E65508-002	TAB	
	E73525-003	SCREW	
	SBSB3008CC	SCREW	
J002	QMC0638-001	AC OUTLET	
J701	EMV7122-003	CONNECTOR	
J702	EMV7122-004	CONNECTOR	
J805	EMV7122-003	CONNECTOR	
J901	QMS6440-021	HEADPHONE JACK	
L751	EQL0001-1R0	INDUCTOR	
L752	EQL0001-1R0	INDUCTOR	
P805	E67764-103	WRAPPING TERMINAL	
S001	QSP1106-005	POWER SWITCH	
S901	QST4231-E01	PUSH SWITCH	
S902	QST4231-E01	PUSH SWITCH	
EP001	E70859-001	EARTH PLATE	
FW802	EWR14B-30SST	FLAT WIRE	
FW803	EWR33B-20SST	FLAT WIRE	
FW808	EWR33B-20SST	FLAT WIRE	
P 806	E67764-302	WRAPPING TERMINAL	
PL001	E45524-002	FUSE CLIP	
PL002	E45524-002	FUSE CLIP	
RY901	ESK5D24-218	RELAY	
ST901	EMB90TV-801A	SPEAKER TERMINAL	

Accessories List

Part Number	Part Name	Q'ty	Description	Areas
E30580-1499A	Instruction Book	1		
BT20044F	Safety Instruction Sheet	1		the U.S.A.
BT20048C	Warranty Card	1		the U.S.A.
BT-20025K	Warranty Card	1		Canada
BT20108	Service Imfomation Card	1		the U.S.A.
BT20071A	Service Center List	1		Canada
E72360-001	Coution Sheet	1		Canada
E66416-003	Envelope	1		the U.S.A.
QPGA025-03505	Poly Bag	1		

Packing Materials and Part Numbers

